

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CHALLIS FIELD OFFICE

ENVIRONMENTAL ASSESSMENT AND GATHER PLAN
CHALLIS HERD MANAGEMENT AREA
WILD HORSE GATHER AND REMOVAL

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BACKGROUND INFORMATION

With passage of the Wild Free Roaming Horse and Burro Act of 1971, Congress found that: “Wild horses are living symbols of the pioneer spirit of the West.” In addition, the Secretary was ordered to “manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands.” From the passage of the Act, through present day, the Bureau of Land Management (BLM) Challis Field Office has endeavored to meet the requirements of this portion of the Act. The procedures and policies implemented to accomplish this mandate have been constantly evolving over the years.

Throughout this period, BLM experience has grown, and the knowledge of the effects of current and past management on wild horses and burros has increased. For example, wild horses have been shown to be capable of 18 to 25% increases in numbers annually, and wild burros increasing at a slower rate, 11 to 15%. This can result in a doubling of the wild horse population about every 3 years. At the same time, nationwide awareness and attention has grown. As these factors have come together, the emphasis of the wild horse and burro program has shifted.

Program goals have expanded beyond simply establishing “thriving natural ecological balance” (setting appropriate management level (AML)) for individual herds, to include achieving and maintaining viable vigorous and stable populations.

AML for the Challis Herd Management Area (HMA) has been previously established based on monitoring data; following a thorough public review in the 1999 Challis Resource Management Plan (RMP); and a 1983 consent judgment in United States District Court. Documents containing this information are available for public review at the Challis Field Office.

The numbers, age, and sex of animals proposed for removal in the proposed alternative are derived from The Wild Horse Population Model Version 1.35 WinEquus developed by Dr. Steve Jenkins, Associate Professor, University of Nevada Reno. Appendix 5 establishes the parameters used for this HMA’s modeling runs.

The Challis HMA encompasses 154,150 acres of public land in the East Fork of the Salmon River. The herd area is bordered on the north by the Salmon River, on the west by the East Fork of the Salmon River, on the south by the ridgeline between Herd Creek and Road Creek and on the East by U.S. Highway 93 and the watershed boundary between the Salmon River drainage and the Lost River drainage. It was last gathered in FY00.

The HMA is also home to a variety of threatened and endangered species, which include chinook salmon, bull trout, steelhead trout and gray wolves. Consultation on these listed species with National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (FWS) has resulted in livestock and wild horse use restrictions in riparian habitats throughout the herd area.

PURPOSE OF AND NEED FOR ACTION

The purpose of the action is to achieve and maintain wild horse AMLs which reflect the normal thriving ecological balance, collect information on herd characteristics, determine herd health, maintain sustainable rangelands, protect/enhance endangered species habitat, protect highly erodible soils in the Malm Gulch and Sand Hollow areas, remove and impound unauthorized horses, and maintain a healthy and viable wild horse population.

Objectives common to all alternatives:

1. Re-establish or maintain herd characteristics that were typical of the Challis Herd Management Area at the time of the passage of the Act.
2. Maintain the genetic diversity of the Challis Herd Management Area
3. Remove approximately 80-90 horses (remaining animals would be no less than the AML of 185) from the Challis Herd Management Area to attain a thriving ecological balance between horses, wildlife, livestock, and vegetation.

Location of Proposed Action

Challis wild horse herd management area, Townships 9-13 N, Ranges 18-21 E, Boise Meridian. See map Appendix 1.

CONFORMANCE WITH EXISTING LAND USE PLANS

The proposed action is in conformance with the Challis Resource Management Plan (July, 1999) under Wild Horses and Burros, Goal 1, Decision #1 (Manage the wild horse herd for an AML of 185 animals in accordance with the 1983 U.S. District Court Consent Judgment and the current activity plan for the wild horse HMA); Decision #3 (Monitor wild horse use of the Malm Gulch and Sand Hollow areas, and remove wild horses as necessary to protect fragile watersheds); and Decision #7 (Adjust wild horse management to ensure progress toward the riparian and aquatic habitat conditions described in Attachment 1).

Relationship to Statutes, Regulations, Policies, Plans, or Other Environmental Analyses

This action is governed by the Wild Free Roaming Horse and Burro Act of 1971 (Public Law (PL) 92-195 as amended) and Title 43 Code of Federal Regulations (CFR) part 4700. Gathering and disposal of the wild horses would be in accordance with PL 92-195 as amended by PL 94-579 (Federal Land Policy and Management Act (FLPMA)) and PL 95-514 (Public Rangelands Improvement Act (PIRA)). Section 302(b) of FLPMA states that all public lands are to be managed so as to prevent unnecessary or undue degradation of the lands. Interim Management Policy and Guidelines for Lands Under Wilderness Review (BLM 1995) would be followed.

The following are excerpts from CFRs:

- 1) 43 CFR 4720.1 - "Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately."
- 2) 43 CFR 4180.2(b) - "Standards and guidelines must provide for conformance with the fundamentals of 4180.1."

All trap sites will be located outside of riparian areas so impacts to historic Chinook salmon and steelhead trout habitats in Road Creek drainage will not occur. A project specific Biological Assessment has been prepared for horse gather operations and has determined that federally listed salmonids will not be affected. Horse gather operations will not prevent attainment of the Riparian Management Objectives identified in PACFISH.

PROPOSED ACTION AND ALTERNATIVES

The Proposed Action and alternatives represent a range of reasonable alternatives based on the issues and goals identified through public scoping efforts.

Alternative 1 (Proposed Action)

Approximately 200 wild horses (74% of the herd) would need to be captured to accomplish the proposed action. The animals captured from the HMA would be shipped to the Challis holding/preparation facility to determine sex, age and color, acquire blood samples, assess herd health, conduct immunocontraceptive research, and sort individuals by age, sex and temperament. In all, approximately 80-90 horses between 0-5 years old would be removed from the HMA and made available to the public through the adoption program. Roughly 30 mares would be treated with a revised immunocontraceptive vaccine and returned to the HMA. Wild horses not placed in the adoption program would be returned to the HMA or placed in a sanctuary. This would ensure a vigorous and viable breeding population, reduce stress on vegetative communities and wildlife, and be in compliance with the Wild Free Roaming Horse and Burro Act and Challis RMP. Additional objectives for this action would be to:

- 1) Reduce reproductive rates to levels that will accommodate a minimum four-year gather schedule allowing for the maintenance of AML.

- 2) Re-establish the pre-selective removal gender sex distribution toward a 60/40 male/female ratio as specified in the 1989 Update of the Challis Wild Horse Herd Area Management Plan (HMAP).

Multiple capture sites (traps) may be used to capture wild horses from the HMA (See Appendix 4 for trap location map). Whenever possible, capture sites would be located in previously disturbed areas. All capture and handling activities (including capture site selections) would be conducted in accordance with Standard Operating Procedures (SOPs) described in Attachment 1. Selection of capture techniques would be based on several factors such as herd health, season of the year and environmental considerations.

Determination of which horses would be returned to the range would be based on an analysis of existing population characteristics, which are saddle horse type conformation with some draft horse influence.

Approximately thirty mares would be treated prior to release with a revised immunocontraceptive vaccine, porcine zona pellucida (PZP), to slow reproduction in the Herd Management Area. This would be a 1-injection, 2-year vaccine with a contraception rate of approximately 82%. The inoculation of mares would consist of a liquid dose of PZP vaccine and a time released portion of the drug in the form of pellets. The approach under study incorporates the PZP into a non-toxic, biodegradable material that can be formed into small pellets. The pellets are designed to release PZP at several points in time during the first three months after injection, much the way time-release cold pills work. This formulation would be delivered as an intramuscular injection by a jabstick syringe into the mares in the working chute. Upon impact a liquid in the chamber would be propelled into the muscle along with the pellets. Such a vaccine would permit a single injection to cause one or more years of contraception at approximately 90% efficiency. Due to the timing of this gather and treatment, only one year of efficacy would be achieved

Delivery of the vaccine would be by means of a syringe with a 12 gauge needle. 0.5 cc of the PZP vaccine would be emulsified with 0.5 cc of adjuvant (a compound that stimulates antibody production) and loaded into the delivery system. The pellets would be placed in the barrel of the syringe needle that is dipped in Furazone to prevent bacterial infection at injection site. Only trained personnel would mix and/or administer the vaccine.

All treated mares would be freeze branded on the left hip or shoulder to enable the researchers to positively identify animals in the research project during the data collection phase. The effectiveness of treatments would be determined by counting foals produced in each of the next two years. This study would be under the direction of the BLM National Research Field Trials on Wild Horse Fertility Control, Summer 2002.

Alternative 2: Under this alternative a modified “gate cut” procedure would be used to reduce the population of horses in the HMA to the AML of 185 animals. A “gate cut” gather is one in which entire bands are gathered and removed and no more than the target number of animals is

gathered. This alternative is described as "modified" since animals that exhibited particularly desirable traits (i.e. size, confirmation, color) would be returned to the HMA. To accomplish this an estimated 100 to 110 animals would be captured at temporary trap sites during mid-August. The animals captured from the HMA would be shipped to the Challis holding/preparation facility to determine sex, age and color, acquire blood samples, assess herd health and sort individuals by age, sex and temperament. Those animals that are unadoptable due to old age would be returned to the HMA or shipped to a long term holding facility. Approximately 80-90 horses would be removed from the HMA and made available to the public through the adoption program. There would be no fertility control used under this alternative.

Multiple capture sites (traps) may be used to capture wild horses from the HMA (See Appendix 4). Whenever possible, capture sites would be located in previously disturbed areas. All capture and handling activities (including capture site selections) would be conducted in accordance with Standard Operating Procedures (SOPs) described in Attachment 1. Selection of capture techniques would be based on several factors such as herd health, season of the year and environmental considerations.

Procedures common to Alternatives 1 and 2

Removal Procedures: The wild horse gather would be conducted by BLM personnel from Rock Springs, Wyoming. These personnel would begin capturing horses in mid August. Horses would be gathered from temporary trap sites. Trap sites would be located close to horse concentrations to reduce stress on the animals by moving them a minimal distance by helicopter. The traps would also be located along existing roads and trails to minimize the trampling and trailing impacts associated with holding animals in the trap and vehicle traffic. All potential trap sites would be cleared by the Field Office archaeologist and TES plant specialist prior to use.

The pilot for this horse gather would be provided through an existing contract with BLM. In accordance with BLM and Office of Aircraft Service (OAS) regulations, no BLM personnel would be allowed in the helicopter during the actual moving of horses. The decision about which bands of horses to capture would be made by Challis Field Office personnel who would fly the gather area the day of the roundup to instruct the pilot as to which bands to capture. To the extent possible entire bands would be gathered at a time.

As much as possible, existing roads and trails would be used to move horses to the trap. This would reduce the possibility of damage to soils and vegetation from trampling by horses, and would decrease the possibility of injury to horses. Other safeguards to ensure the safety of the horses and people are:

Allotment and pasture fences would be rolled back, as appropriate, from the path of horses en route to the temporary traps.

Use of the temporary traps would ensure that horses would not have to travel excessive distances. This is especially critical for foals.

The rate of movement of horses to the trap would not exceed those set by the BLM authorized officer; taking into account the distance to the trap, the prevailing weather conditions, the presence of foals, and the general condition of the horses. Generally, horses would be moved no faster than 5-6 miles per hour (trotting) to avoid stress.

The gather would take place during August or early September when foals should be sufficiently old enough to keep up with the band without trouble. Also, there should be few mares carrying foals that late in the season.

A veterinarian would be on site during the entire gather.

Any ground disturbance would be rehabilitated.

Preparation and Transporting Procedures

Once horses have been captured at the temporary trap site, they would be transported by truck to the BLM corrals in Challis, where they would be separated by sex, age class, and wet/dry mares. Any problem animals would be separated at this time also. Feed and water would be available if it became necessary to hold horses at the temporary trap site longer than 12 hours. Due to BLM selective removal policy (IM2002-095), several extra bands may have to be gathered. This Instruction Memorandum places removal priority on animals five years of age and younger. Animals ten years of age and older may then be removed and placed into long-term holding facilities (sanctuaries). Wild horses six to nine years old would be removed last and only if the HMA cannot achieve AML without their removal. The veterinarian would do a visual examination of each horse either at the trap site or immediately after they arrive in Challis to ensure that there are no physical or biological abnormalities or life threatening conditions present. The veterinarian would be responsible for worming, Coggins testing, inoculating, and drawing blood. Qualified BLM personnel would freeze brand and age. Horses would then be available for private adoption under the BLM adoption program.

Blood Draws for Genetic and Health Studies

Blood samples would be drawn from approximately 25 to 40 horses captured during the gather effort. These samples would be used to evaluate male and female contribution to the gene pool and estimate genetic effective population size for the Challis herd. These same blood samples would then be tested and banked at Colorado State University in efforts to evaluate the risks of infectious upper respiratory diseases (IRUDs), including strangles and other health issues, in the Challis herd. Hazardous material (veterinarian drugs) in use during the gather operation would be kept, used and disposed of under the supervision of the contract veterinarian. Regulated

medical waste would be placed in leak proof containers that are contained in a red plastic bag labeled medical waste. Medical waste would be handled and transported separately from other waste to an approved disposal facility.

Distribution Process

BLM employees and a licensed veterinarian would be on site for all capture, transportation, preparation, and handling operations. Each horse would be freeze branded with BLM numbers and tracked as an individual through the adoption and compliance with the Private Maintenance and Care Agreement (PMACA) processes. Each horse would receive a Coggins test for Equine Infectious Anemia so they can legally be taken out of state. Applicants for horses under the adoption program would be screened to determine whether they meet necessary conditions for adoption before their applications are approved. Any horses not adopted in Challis would be transported to a BLM holding facility where they would be available for future adoptions.

Branded domestic horses have been present in the Herd Management Area during previous gathers. All branded horses caught during the gather would be impounded at the Challis Field Office Corrals in Challis until the owner of the brand can provide proof of ownership of the horse. Proof of ownership would be subject to state of Idaho requirements. A trespass fee per Animal Unit Month (AUM) and a prorated cost of the removal would be charged to retrieve these animals. Unclaimed branded animals would be turned over to the Idaho brand inspector.

Destruction of Lamé Horses

See Attachment 1- Standard Operating Procedures for Removal and Safety 2002, item 6 for detailed procedures.

Alternatives Considered But Eliminated From Further Analysis:

No Action Alternative

Under this alternative no removals of any age horses would take place from the Challis HMA. This alternative was eliminated from further consideration due to long-term impacts on the population and range, and the inability of this alternative to reduce the herd to within the acceptable range of AML. This alternative would allow natural controls to regulate the size of the herd. There would be no active management to control herd size of this population. Under this alternative, the wild horses would be allowed to regulate their numbers naturally through predation, disease, and forage, water and space availability.

Other factors also contributed to the elimination of this alternative from further analysis. Wild horses in the Challis HMA are not substantially regulated by predators. In addition, wild horses are a long-lived species with high foal survival rates. This alternative would result in a steady

increase in numbers that would exceed the carrying capacity of the range. The Wild and Free Roaming Horse and Burro Act of 1971 mandates the Bureau to “prevent the range from deterioration associated with overpopulation”, and “preserve and maintain a thriving natural ecological balance and multiple use relationships in that area”. These mandates would not be met under this alternative.

Fertility Control as a Complete Means of Population Control

Under this alternative, at least 80% of all breeding-aged mares currently on the range would need to be gathered and brought into the Challis corral facility. Research studies on east-coast barrier island populations being managed by fertility control, and application of The Wild Horse Population Model Version 1.35 WinEquus developed by Dr. Steve Jenkins to the Pryor Mountain data (data on file at Challis FO), clearly indicate that during the first 3 years of management at least 80% of all breeding aged mares must receive the vaccine and subsequent boosters, for each year of expected infertility. This level of infertility is necessary to reduce population growth rates to only a stabilizing level. This action will not allow for reductions in herd size, but will, at best, maintain the population at the size it was when fertility control was first applied.

This alternative was considered but eliminated from further analysis due to the inability of this alternative to reduce the herd to AML within a timely manner. Failure to reduce the herd to within acceptable limits of AML would result in irreparable harm to the range. In addition, all breeding-aged mares would either need to be gathered and brought into Challis each March for booster shots or the vaccine would need to be remotely-delivered in the field. Gather activities in the spring might have a negative impact on mares heavy with foal. Furthermore, remote access to this number of mares in the field may be compromised by weather and snowfall conditions during this time period. Further analysis of normal behavior in Challis mares and the impacts of predation and other natural mortality are needed prior to further consideration of this alternative.

Affected Environment

General Setting: The herd area is characterized by open mountainous terrain with high valleys, grading down to broad flats on the east and the Salmon River drainage to the northwest. Elevations vary from about 5000 feet adjacent to the Salmon River to 9658 feet on Lone Pine Peak in the northern end of the herd area. The steep, mountainous terrain effectively limits motorized travel to a few well-traveled roads through the area, and restricts winter movement of wild horses to open, windswept ridges or valley bottoms.

Consultation under the National Historic Preservation Act of 1966 (as amended) has been conducted in accordance with the BLM’s National Programmatic Agreement and the implementing protocol agreement between Idaho BLM and the Idaho State Preservation Office. This project would have no effect on cultural resources. If at any time during project implementation cultural resources are located, all work in the area would cease until a qualified archaeologist could visit the site and determine the significance of the resource. Sensitive plant

inventories have been conducted on all proposed temporary trap sites and no impacts are expected. See map Appendix 4.

Critical Elements of the Human Environment

Some of the following elements of the human environment are subject to requirements specified in statute, regulation, executive order, or policy and must be considered in all environmental assessments. Others have been added to the following list because of their importance in assessing impacts. All the following elements have been analyzed. *However, elements denoted by an "X" are **NOT** affected by the proposed action and will receive no further consideration.*

<input type="checkbox"/> Air Quality	<input type="checkbox"/> Areas of Critical Environmental Concern
<input checked="" type="checkbox"/> Cultural Resources	<input checked="" type="checkbox"/> Farm Lands (prime or unique)
<input checked="" type="checkbox"/> Flood plains	<input checked="" type="checkbox"/> Native American Religious Concerns
<input checked="" type="checkbox"/> Threatened/Endangered Animals	<input checked="" type="checkbox"/> Threatened/Endangered Plants
<input type="checkbox"/> Threatened/Endangered Fish	<input type="checkbox"/> Wastes, Hazardous or Solid
<input type="checkbox"/> Water Quality - Surface & Ground	
<input checked="" type="checkbox"/> Wild & Scenic Rivers	<input type="checkbox"/> Wilderness
<input checked="" type="checkbox"/> Availability of Access/ Need to Reserve Access	<input type="checkbox"/> Soils
<input type="checkbox"/> Wild Horse and Burro Designated Herd Management Areas	<input type="checkbox"/> Wetlands/Riparian Zones (including uplands)
<input type="checkbox"/> Vegetation types, communities; vegetative permits and sales;	<input checked="" type="checkbox"/> Mineral Resources
	<input checked="" type="checkbox"/> Invasive, Non-native Species
<input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Forest Resources
<input checked="" type="checkbox"/> Economic Feasibility of Agricultural Entry	<input checked="" type="checkbox"/> Paleontological Resources
<input checked="" type="checkbox"/> Indian Trust Resources	<input checked="" type="checkbox"/> Tribal Treaty Rights
<input checked="" type="checkbox"/> Recreation Use, Existing and Potential	<input checked="" type="checkbox"/> Visual Resources
<input type="checkbox"/> Existing and Potential Land Uses	<input checked="" type="checkbox"/> Economic & Social Values
<input checked="" type="checkbox"/> Environmental Justice (EO 12989) (minority and low-income populations)	<input type="checkbox"/> Fisheries
<input checked="" type="checkbox"/> No chemical or chemicals from the EPA's <u>Consolidated List of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986</u> , (10,000 pounds or more), will be used, produced, stored, transported, or disposed of in implementing the proposed action. No extremely hazardous substances, as defined in 40 CFR 355, will be used,	

produced, stored, transported, or disposed of in implementing the proposed action. *If this element is not checked, see EA document for further details concerning these chemicals and/or hazardous substances.*

Affected Resources:

Air Quality – Under the Clean Air Act (as amended, 1977) all BLM-administered lands were given a Prevention of Significant Deterioration (PSD) Class II status. In this PSD Class, moderate air quality deterioration associated with moderate, well-controlled industrial and population growth is allowed. Air quality in the Challis Field Office Area is generally considered to be excellent because of the remoteness of the Field Office's geographical location in east-central Idaho. Some air quality degradation occurs within the Challis FO Area, but it is usually seasonal and short-term.

Areas of Critical Environmental Concern - There are five Areas of Critical Environmental Concern (ACEC) within the HMA. They are: Malm Gulch/Germer Basin, Lone Bird, Antelope Flat, East Fork Salmon River Bench and Sand Hollow. These ACECs contain a variety of unique features including pristine vegetation, rare plants, unusual plant assemblages, fragile soils and cultural resource significance.

Threatened/Endangered Fish - The HMA is located within three watersheds; the Salmon River to the north, the East Fork Salmon River to the south, and Warm Springs to the east. Of these systems, only the Salmon River is currently occupied by federally listed Snake River spring/summer chinook salmon, Snake River sockeye salmon, Snake River steelhead trout, and bull trout. Horse gather operations will not be located in areas that drain into the Salmon River.

Road Creek is a tributary to the East Fork of the Salmon River and is the primary fish bearing system that drains the HMA. The Road Creek drainage includes numerous tributary streams such as Mosquito Creek, Bear Creek, Horse Basin Creek, Corral Basin Creek, and intermittent stream drainages such as Poison Creek and Boulevard Springs. Snake River spring/summer chinook salmon do not currently occupy historic spawning and rearing habitats in Road Creek due to stream diversions in the lower part of the drainage. Snake River sockeye salmon are not native to the East Fork Salmon River Watershed.

With the large historic populations of steelhead trout in the East Fork Salmon River mainstem, it is likely that steelhead also used Road Creek for either spawning or rearing. Snake River steelhead trout were Federally listed as a Threatened species in September, 1997. Discussions with local residents indicate that Road Creek was occupied by anadromous steelhead trout (*Oncorhynchus mykiss*) within the past 40 years. Prior to the construction of stream diversions in lower Road Creek, it is thought that the stream carried sufficient water to be used extensively by steelhead trout.

In June 1997, the bull trout (*Salvelinus confluentus*) was listed as a Threatened species. Bull trout are known to be present in the mainstem of the East Fork and several of its tributaries. Fisheries surveys by BLM employees have not identified bull trout in the Road Creek drainage. It is not known if bull trout were historically present in Road Creek or any of its tributaries.

There are no federally listed salmonids present in the Warm Springs watershed due to naturally elevated water temperatures from geothermal hot springs throughout the drainage.

Hazardous Material - Hazardous material (veterinarian drugs) in use during the gather operation would be kept, used and disposed of under the supervision of the contract veterinarian.

Water Quality - Six primary perennial and intermittent streams flow within the herd management area. Cold water biota is the critical beneficial use for Broken Wagon Creek. Cold water biota and salmonid spawning are the critical beneficial uses for Road Creek, Horse Basin Creek, Corral Basin Creek, Mosquito Creek and Bear Creek. In addition, secondary contact recreation and agricultural water supplies (livestock water) are also beneficial uses for all perennial streams in the herd area.

All of Road Creek, from its headwaters to its confluence with the East Fork of the Salmon River, has been identified as a Water Quality Limited Segment (WQLS) by the Environmental Protection Agency. A water-quality monitoring program is being implemented to provide current and ongoing data trends, status of beneficial uses, and BMP (Best Management Practices) effectiveness in meeting water quality standards and protecting existing beneficial uses.

Road Creek is approximately 15.3 miles long. Of this length, the last 2.7 miles of the creek is in private ownership, 1.7 miles is administered by the state, and the remainder is administered by BLM.

Existing beneficial uses on Road Creek include salmonid spawning (resident fish), cold water biota, secondary recreation and agricultural livestock water. As a tributary and sediment source to the East Fork of the Salmon River, Road Creek can affect water quality and anadromous and resident fisheries in the East Fork of the Salmon River.

Wetlands/Riparian Zones - There are three primary perennial creeks within the HMA (Corral Basin, Horse Basin, and Road Creeks). Road Creek has two major tributaries (Mosquito and Bear Creeks) that enter from the south. Broken Wagon Creek is perennial for just over 2 miles and also lies within the HMA flowing east into Antelope Flat. All these creeks are spring fed with headwaters within the HMA, and actively flow throughout the year. These creeks make up a total of 37.8 miles. Riparian condition was evaluated from 1994 through 1999 through a contracted riparian inventory. Condition

ratings are as follows: 31% of the stream length was in Proper Functioning Condition, 54% was Functioning at Risk with an upward trend, 10% Functioning at Risk with trend not apparent, and 5% of the stream length was Non-Functional. This condition rating focused on evaluating stream function criteria and existing vegetation habitats. Characteristics of a properly functioning riparian area include: banks stabilized by riparian vegetation, accessible floodplains, water storage in the banks due to high organic content, high water tables, the ability to dissipate energy and to trap sediment. Other secondary perennial creeks and numerous intermittent and ephemeral drainages lie within the HMA providing water, shade and forage to the resident horses.

Riparian areas and meadows associated with springs and seeps are generally in fair to poor condition due to altered hydrologic processes and community types and compacted soils throughout the HMA.

Wilderness - The Jerry Peak and Corral-Horse Basin Wilderness Study Areas (WSA) fall within the Wild Horse Management area. Management of the WSAs is prescribed in the Interim Management Policy and Guidelines for Lands Under Wilderness Review (BLM 1995). This document describes the policies under which BLM would manage lands under wilderness review until Congress either designates these lands as wilderness or releases them for other purposes.

Approximately forty-seven percent of the HMA is Wilderness Study Area. All 48,500 acres of the Corral-Horse Basin WSA fall within the HMA. The Jerry Peak WSA makes up 46,150 acres; 23,269 acres of which are in the HMA.

Soils - The soils within the HMA are shallow to very deep, gravelly to stony loams to clay loams derived from extrusive igneous rocks. Some are influenced by calcium (containing calcic horizons) from limestone deposits. Soils occurring at the higher elevations have a thick surface horizon (mollic), however, most are dry for at least half the growing season (aridic). The erosion hazard is slight to moderate. An exception to this is the “badlands” associated with Malm Gulch and Sand Hollow, which have severe erosion hazards and are described only at the suborder level as mixed Orthids. All the soil types within the HMA have rapid infiltration rates although some may have a clay or calcic horizon within 20 inches of the surface that may perch surface water.

Wild Horse & Burro - The proposed gather and removal would occur in the Challis Herd Management Area. Current census data (7/25/02) indicates there are 43 bands containing 251 horses in the HMA. Of these 34 were foals, indicating a 16% population increase.

Dominant colors for the present day horses are gray, black, and bay. Other colors observed are palomino, sorrel, roan and paint. The average weight of a mature adult is estimated to be around 900 pounds. This HMA has been gathered seven times since 1983. Each gather has been a “gate cut” operation whereby the removal of animals

stopped when the target number was reached. One thousand four hundred eighty three horses have been removed since 1979.

Forage is allocated for 185 horses in the HMA or 2220 Animal Unit Months (AUMs). Monitoring data indicate that when the total horse population begins to reach the upper limit of 253 animals, resource conditions begin to decline, especially in riparian areas. Stubble height standards have been set for the perennial streams in the HMA at 4 inches at the end of the grazing season. This goal has been met by the livestock use, but use of the riparian areas by horses, before and after livestock use, has prevented the stubble height standard from being achieved (Mountain Springs- 2001 End of year Report; and Warm Springs monitoring file). The Corral Basin, Horse Basin and Little Anderson Ranch areas are three areas that have had the most documented horse use. Utilization levels and stubble height standards have not been met the last two years due primarily to use by wild horses.

Vegetation Types - Forty-three upland vegetation communities (including one generic mixed conifer type) have been identified within the Challis Field Office Area. All but four of these are found within the HMA. The most dominate of these are sagebrush communities with varying understories of fescue, wheatgrass or bluegrass species. Also common are shadscale and chicken sage communities with ricegrass, squirreltail, and bluegrass understories on drier (<9 inch precipitation zones) and mixed conifer and mountain mahogany communities on the higher elevation, wetter sites (>16" precipitation).

The upland communities are generally in a healthy state with adequate vegetative cover, good plant spacing, and relatively little invasion of noxious or undesirable plants. Existing species composition (based on weight) places most of the sites in late seral stage. It is estimated that less than 30% of the HMA is at mid to early seral stage.

Existing and Potential Land Uses - There are six cow/calf grazing allotments within the herd management area (HMA) currently under deferred or rest rotation grazing systems with use periods of spring, summer and fall. Two additional areas (Malm Gulch and Sand Hollow) are closed to livestock grazing (Challis RMP, 1999) due to fragile soil conditions. Warm Springs, Mountain Springs, Road Creek, Split Hoof, Bradbury Flat and Bradshaw Basin allotments are within the gather area. Other primary resources associated with the rangeland environment include recreation activities, watershed protection and wildlife habitat.

Wildlife - Primary wildlife species present in the herd area include elk, mule deer, antelope, sage grouse, and blue grouse. Riparian habitats found along the creeks and around the springs and seeps in the area provide important habitats for riparian dependent wildlife species.

Fisheries - Road Creek also contains broadly distributed populations of westslope cutthroat trout (*Oncorhynchus clarki lewisi*), which are considered a state-sensitive species. These fish are found in most of Road Creek, Mosquito Creek, Bear Creek and Horse Basin Creek, and likely occur in the lower reaches of Corral Basin Creek.

Electrofishing surveys conducted by BLM personnel in 1994 identified westslope cutthroat/rainbow trout hybrids in Road Creek and Mosquito Creek. Bear Creek and Horse Basin Creek both contain fish that appeared to be pure strains of westslope cutthroat trout. No fish were observed in lower Corral Basin Creek although instream habitats appear to be suitable to support fish during high water years.

Environmental Consequences

Impacts of the Proposed Action:

Air Quality - Since the horse gather is going to occur in August, and conditions will probably be dry it is very likely that dust would be a short term and localized air quality problem (especially at the trap site). The dust should not persist after the trap site has been abandoned and the associated vehicle traffic is gone. The estimated time a trap would be in use is two to three days.

ACECs - Impacts to the ACECs may occur in the form of vegetation disturbance and soil dislocation from herding. These impacts would be short-lived and overall insignificant.

Threatened/Endangered Fish - Chinook salmon, steelhead trout and bull trout are not currently present in any of the drainages where horse gathering would occur. Therefore, no direct or indirect effects to these Federally listed species are expected. Horse trap sites would be located outside of riparian areas so effects to federally listed species and their habitats can be avoided. Horse gather activities are expected to result in minimal soil disturbance. Any soil disturbed as a result of horse gather activities is not expected to reach downstream habitats used by federally listed salmonids.

Wastes, Hazardous Materials - The amount of regulated medical waste that would be generated by this project would be minimal and not result in any threat to the environment. Therefore, no impacts are expected.

Water Quality - Any impact on riparian and aquatic habitats would be reflected in water quality. Any action that lessened riparian impacts would reduce impacts on water quality and tend to increase water quality, although impacts that affect stream channel morphology or riparian vegetation would take years to exert measurable effects. As a result, quantification of effects would be difficult. All wild horse gather activities would be located in areas which would not contribute sediment into Road Creek.

Wetlands/Riparian Zones - The gather activities would have no long-term effects on the wetland or riparian resources since these areas would be avoided. Some insignificant impacts, such as localized bank alteration, may be experienced should horses inadvertently run through seep areas or across stream channels.

All large ungulates, both native (elk, deer) and introduced (wild horses, livestock) utilize wetlands and riparian areas for shade, water and forage. Native ungulates are relatively few, tend to not concentrate in large numbers and are allowed to range over large areas. Wild horses do impact live creeks and springs, by trampling in search of water and forage, but do not tend to concentrate or lounge for long periods of time. Maintaining a defined herd size assists in the long term management and general improvement objectives identified for perennial creeks and springs. By maintaining the wild horse herd at the AML of 185, the improvements currently being obtained in the wetland and riparian habitats through improved livestock management would continue.

Wilderness - Wild Horses were identified during the Corral/Horse Basin and Jerry Peak WSA inventory process as a wilderness value within the WSAs. It is likely that, during the gather there would be some surface disturbance due to the concentration of horses and humans within a temporary trap area. However by maintaining the wild horse herd at the level specified in the Resource Management Plan, degradation caused by overgrazing would be reduced, thus improving the overall health and appearance of the WSAs.

Wilderness values such as outstanding opportunities for primitive recreation, solitude and naturalness would be temporarily impacted by the presence of human activity including helicopters, trucks, riders and temporary corral structures during the gather, however this is expected to last about one week and occurs during late summer, a low use time. No vehicle use would occur off of existing roads and ways. The supplemental values noted in the original inventories include excellent wild horse viewing in Corral-Horse Basin WSA and the geological value of the Herd Lake landslide in Jerry Peak WSA. Neither of these values would be impaired through the implementation of this proposal.

This project would be substantially unnoticeable once the temporary gather facilities are removed. The addition of this proposal would not produce a cumulative effect upon the area's wilderness characteristics or values that would constrain Congress's ability to determine suitability for preservation as wilderness. The proposed action is consistent with the Interim Management Policy for Land Under Wilderness Review.

Soils - The gather of horses would occur primarily along existing horse trails or designated roads. During the gather some additional disturbance to soils and vegetation adjacent to the trails would occur. Aggregate structure can be destroyed, deep hoof prints could modify and influence surface drainage, additional compaction of the soil and trampling of vegetation can result. The degree of these impacts would be dependent on soil moisture conditions, the concentration of horses, and the overall amount of time horses are present.

The most severe impacts to the soil resource would be expected near and in temporary traps and holding corrals. Dry soil conditions at the time of the gather would decrease the potential for compaction and deep hoof prints, but soil particles would be more susceptible to wind erosion due to reduced aggregate stability. These impacts to the soil resource would be localized and generally short-term, unless severe adverse climatic conditions followed shortly after the gather. The latter would further displace or remove soil materials by wind or water erosion. Historically, trampling disturbance has revegetated without reseeding.

Wild Horse & Burro - Impacts to wild horses take the form of direct and indirect impacts and may occur on either the individual or the population as a whole. Direct individual impacts are those that occur to individual horses and are immediately associated with implementation of the Proposed Action. These impacts include: handling stress associated with the gather, capture, sorting, animal handling, and transportation of the animals. The intensity of these impacts vary by individual and are indicated by behaviors ranging from nervous agitation to physical distress. Mortality of individuals from this impact is infrequent, but does occur in .5 to 1 percent of horses gathered in a given roundup.

There are no indications that these direct impacts persist beyond a short time following the stress event. They would be expected to completely dissipate following release or adoption. Stress levels and the potential for injury are, however, expected to be highest immediately following capture, and when animals are moved through the chutes in preparation for adoption. Well-constructed corrals at the corral facility, well maintained equipment, and additional pens for animals determined best kept separate from other animals, would be provided in an effort to decrease stress and the potential for injury and illness. The holding facility would be watered regularly to keep the dust down. Experienced BLM personnel would be on-site during all phases of the operation. A contract veterinarian or APHIS veterinarian technician would either be on-site or on-call at all times during the gather and preparation. Observers would be asked to remain some distance from the animals during all phases of the gather and preparation of the animals in order to decrease additional stress due to surrounding levels of commotion and activity.

Indirect individual impacts are those impacts that occur to individual horses after the initial stress event. Indirect individual impacts may include spontaneous abortions in mares, and increased social displacement and conflict in studs. These impacts, like direct individual impacts, are known to occur intermittently during wild horse gather operations. An example of an indirect individual impact would be the brief skirmish which occurs with most older studs following sorting and release into the stud pen which lasts less than two minutes and ends when one stud retreats. Traumatic injuries do not occur in most cases, however, they do occur. These injuries typically involve a bite and/or kicking with bruises that don't break the skin. Like direct individual impacts, the frequency of

occurrence of these impacts among a population varies with the individual. Spontaneous abortion events are very rare among mares following captures.

Population wide direct impacts are immediate effects that would occur during or immediately following implementation of the Proposed Action. They include the displacement of bands during capture and the associated re-dispersal which occurs following release, the modification of herd demographics (age and sex ratios), the temporary separation of members of individual bands of horses, the reestablishment of bands following releases, and the removal of animals from the population. With exception of changes to herd demographics, direct population wide impacts have proven, over the last 20 years, to be temporary in nature with most if not all impacts disappearing within hours to several days of release. No observable effects associated with these impacts would be expected within one month of release except a heightened awareness of human presence.

The effect of band displacement on a population as a result of gather operations has been observed in several HMAs following releases. Observations have been made of individual and population wide horse response following releases from both the trap site where particular animals were captured and from the central holding facility where all captured animals were held. Most horses relocated themselves from the release site back to their home ranges within 12 to 24 hours and at times much faster. This redistribution occurred following a brief “reorientation swing” involving horses ranging out from the release site in a curving arc until their bearings were apparently restored. Following this initial random travel, most horses lined out and headed off in a particular direction often without deviating from that line until they disappeared into the mountain or over the horizon. Assertions that horses are simply taking the most direct route away from humans are not accurate, as instances where horses reverse their original direction crossing back in front of the release trailer or holding area are fairly common following the re-orientation swing.

Specialists have also observed horse behavior, following releases, as it relates to bands that are separated at capture. While the affinity of individual animals to their band would be expected to vary, it was a very common observation that mares or studs broke from the group they were released with (unexpected behavior for a social animal exercising the flight response) and headed toward a particular animal or group of animals. Following this activity, the pair or trio of horses continue the re-orientation swing and then lined out together in a common direction. In some cases, individual groups were observed later together in a new area presumed to be the site of their original home range. Some specialists have noted individual mares reassociated with specific studs or mare groups following capture.

The effect of removal of horses from the Challis herd would not be expected to have an impact on herd dynamics or population variables, as long as the selection criteria for the removal ensured a “typical” population structure was maintained. Obvious potential

impacts on horse herds and populations, from exercising poor selection criteria not based on herd dynamics, includes modification of age or sex ratios to favor a particular class of animal. Expected results of establishing a 60/40 male/female ratio would be: decreased band size, competition for mares would be expected to increase, recruitment age for reproduction among mares would be expected to decline, and size and number of bachelor bands would be expected to increase.

The Proposed Action would mitigate potential adverse impacts on wild horse populations by establishing a procedure for determining what selective removal criteria is warranted for the herd. This more flexible procedure of removing horses under 6 years and over 10 years old, would allow for the correction of any existing discrepancies in herd dynamics which could predispose a population to increased chances for catastrophic impacts. The Proposed Action would establish a standard for selection which would minimize the possibility for developing negative age or sex based selection effects in the population in the future.

Considerable progress has been made in wild horse contraception since 1992. A field-deliverable, 1-injection vaccine which contains polymer pellets that release PZP and adjuvant boosters at prescribed times has been developed. Contraception rates in mares are from 82% (2 years) to 94% (1 year). Results of fertility control research conducted to date indicate that PZP immunocontraception is highly effective, and that the reproductive success of the mares returns to normal the year following fertility control. There would be no significant increase in stress above that normally associated with the preparation and sorting of animals during a gather.

Research has shown that treating mares three consecutive years and possibly five consecutive years is completely reversible. The vaccine has been used successfully to manage the wild horse population of Assateague Island National Seashore under the sponsorship and authority of the National Park Service (NPS). The population has been treated for 12 years without health problems. Wild horses are being treated on Cape Lookout National Seashore for the NPS, on Carrot Island (Rachel Carson National Estuarine Reserve) in NC, and on many HMAs in Nevada, for the Bureau of Land Management. In addition to controlling the horse population on Assateague Island and the other locations, research has shown thus far no permanent infertility, and has shown extended lives and improved health condition of older mares by removing the stresses of pregnancy and lactation (Journal of Reproduction and Fertility 1992 Kirkpatrick, J.).

Population wide indirect impacts would not appear immediately as a tangible effect and are more difficult to quantify. The proposed action would decrease foal production for one year, but would not negatively impact the wild horse population in long-term management. Population wide indirect impacts are associated primarily with the use of fertility control drugs and involve reductions in short term fecundity of initially a large percentage of mares in a population, increasing herd health as AMLs are achieved, and potential genetic issues regarding controlling contributions of mares to the gene pool,

especially in small populations. Again, with implementation of the Proposed Action, these impacts would be mitigated by an overall lessening of the need to impose fertility control treatments on a high proportion of the mare population, and all mares would be expected to successfully recruit some percentage of their offspring into the population.

Vegetation Types - Short-term disturbance would occur in the immediate vicinity of the catch pens or corrals and the loading chute. The soil would be compacted and vegetation would be trampled during panel installation by personnel and vehicles and severely trampled in the catch pen area by wild horses, domestic horses, and the wranglers. Crushing of standing vegetation would occur during gather activities from running horses. Although roads and trails would be used where possible, certain impacts would, nevertheless, occur. It is unlikely these impacts would result in significant numbers of plants affected or size of area affected. Large stature shrub communities in the wetter areas would experience minimal impacts, while the low stature shrub communities (chicken sage, fringed sage) occupying the drier, more fragile ranges may experience some mortality resulting in reduced ground cover and increased bare ground. Although these impacts may appear to be considerable on a site-specific basis, they are generally slight when viewed throughout the project area.

Many of the vegetation types occupying the Herd Management Area are dominated by bluebunch wheatgrass. This particular species is sensitive to grazing during certain times of its life cycle due to its growth form. When the growing points (apical meristems) reach grazing height (4-6 inches) the plant ceases all growth if it is grazed. This response may last several years depending upon the severity of grazing, climate year, and health of the plant affected. Nested frequency plots located throughout the HMA generally indicate a static to upward trend in plant vigor. Some locations, however, do indicate a downward trend as shown by a reduction in frequency of occurrence. It has not been conclusively determined that this downward trend is the result of uncontrolled wild horse grazing or merely natural plant dynamics (i.e. responses to drought). By controlling the wild horse numbers at a level anticipated to be in balance with ecological capabilities of the site, these bluebunch wheatgrass communities would remain healthy and vigorous.

Existing and Potential Land Uses - Managing horses and livestock to obtain and maintain a thriving ecological balance would benefit all biotic and abiotic resources. Direct effects to livestock grazing may include scattering of livestock on those allotments that may still have cattle on them during the gather. Mountain Springs and Road Creek are the only allotments within the HMA that may still have cattle out during the gather, and the cattle on Mountain Springs are scheduled to move at this time. Bradshaw Basin, Split Hoof, Bradbury Flat and Warm Springs should not have cattle grazing during the gather, so this affect will be minimal.

Wildlife - Wildlife populations in the areas from which horses are gathered by the helicopter would be forced to seek cover in areas adjacent to the flight path. This would not cause them to abandon their normal habitat areas as the disturbance would be of short

duration (8 to 10 days) and very localized. A reduction in wild horses from current numbers to AML would generally create more favorable conditions for wildlife. Effects would include increased amounts of herbaceous vegetative cover and less competition for food and space. Reduced wild horse numbers would also result in the improvement of riparian habitats for riparian-dependent wildlife species.

Fisheries - Westslope cutthroat trout are the only salmonid within the horse gather assessment area that are not federally listed. Westslope cutthroat are present in Road Creek and several of its tributaries. Since horse herding would occur along these occupied streams, there is the potential for individual fish to be affected as horses are moved from the upper portions of the watershed down to the temporary corrals in the lower portions of the watershed. These affects could include affects to instream habitats from streambank trampling and soil disturbance, or direct affects to individual fish from trampling as the herd crosses an occupied stream. Any affects to individuals or their habitats would be localized and short term in nature and are not expected to occur at a level that would affect the long-term reproductive capability of westslope cutthroat trout in the Road Creek watershed.

Impacts of Alternative 2:

Air Quality - Same as Proposed Action.

ACECs - Same as Proposed Action.

Threatened/Endangered Fish - Same as Proposed Action.

Wastes, Hazardous Materials - Same as Proposed Action.

Water Quality- Same as Proposed Action.

Wetlands/Riparian Zones – Same as Proposed Action.

Wilderness- Same as Proposed Action.

Soils- Same as Proposed Action.

Existing and Potential Land Uses – Same as Proposed Action.

Wildlife- Same as Proposed Action.

Fisheries- Same as Proposed Action.

Wild Horses - This alternative would employ a modified “gate cut” gather. Using this method, approximately 100 to 110 horses would be gathered, with 80 to 90 removed. This gather is described as “modified” because animals with more desirable traits (i.e. size, conformation, color) would be returned to the range. This type of gather has been shown to leave more studs than mares in most cases. Expected results of more males than females would be: decreased band size, competition for mares would be expected to increase, recruitment age for reproduction among mares would be expected to decline, and size and number of bachelor bands would be expected to increase. Based on previous gathers, the sex ratios for the Challis herd seems to be holding at about 45 to 50 % studs.

Fewer animals would need to be gathered under this proposal resulting in less overall stress on the herd.

Under this proposal fertility control would not be used, so the population would continue to increase at 15 to 20% each year. A gather would again be necessary in a couple of years to stay within the AML.

Cumulative Impacts

Cumulative impacts on the environment of both Alternative 1 and 2 would be similar. Both actions would help stabilize soils in fragile soil areas which would in turn lead to healthier plant communities and ultimately better watershed health and water quality. Good watershed health and good water quality have beneficial effects for salmonid habitat, cold water biota and recreation.

Based upon these considerations, the effects of other existing and reasonably foreseeable future activities including the Proposed Action would not significantly affect the environment.

Consultation and Coordination

A public hearing was held July 9, 2002, to discuss the use of helicopters and motorized vehicles to capture wild horses. During this meeting, the public was given the opportunity to present new information and to voice any concerns regarding the use of these methods to capture wild horses.

This EA and Gather Plan have been distributed to the members of the general public, special interest groups, and intra-and interagency personnel (See Attachment 3) for review and comment.

Person/Agencies Consulted: (see attached mailing list- Attachment 3)

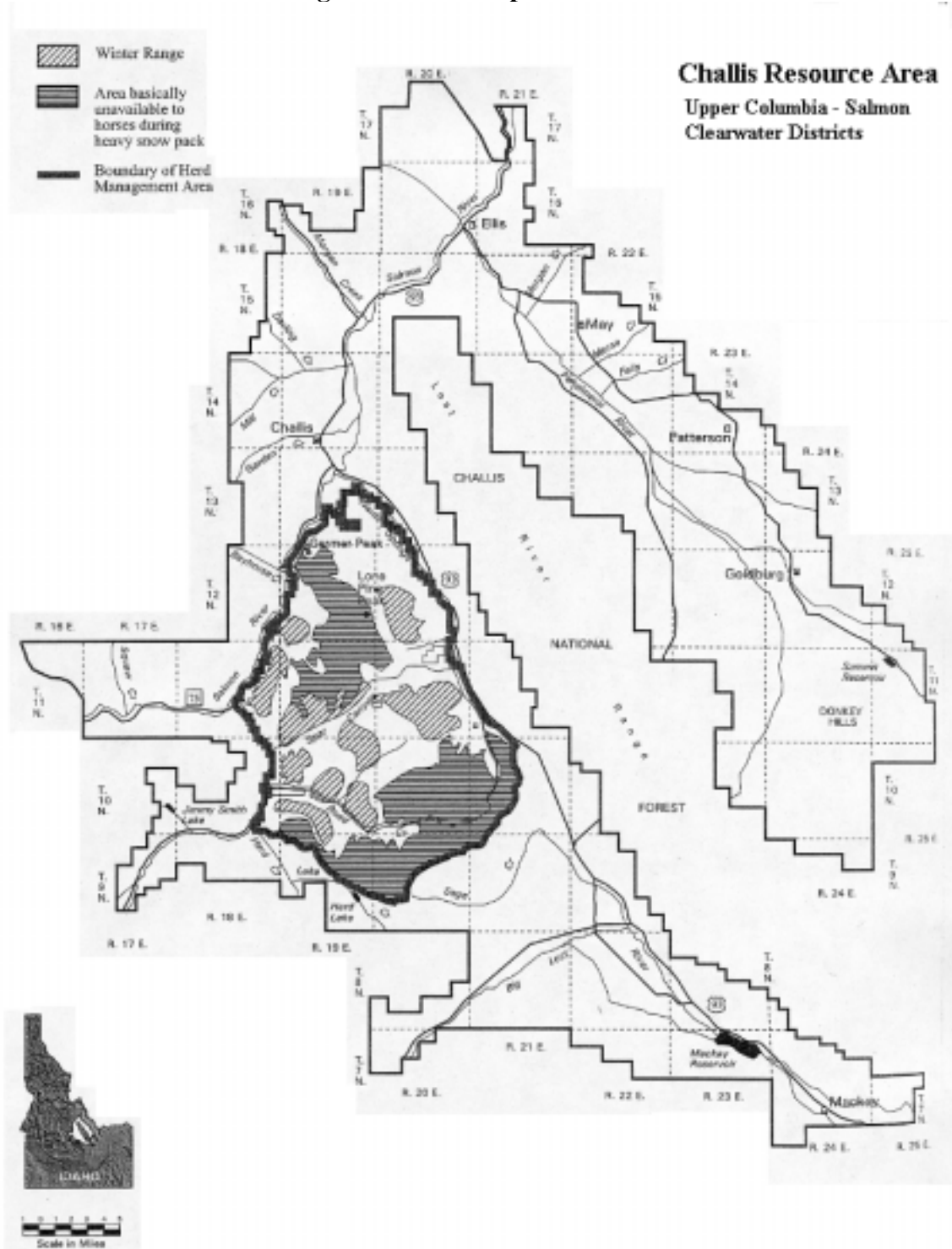
List of Preparers

Kate Forster	Fisheries Biologist
Carol Hearne	Archaeologist
Jerry Gregson	Wildlife Biologist
Elias Williams	Sensitive Plant Specialist
Jeff Christenson	Recreation Planner
Leigh Redick	Natural Resource Specialist & Preparer

Signature (NEPA Coordinator)

Date

APPENDIX 1 - Challis Herd Management Area Map



APPENDIX 2- Challis Herd Management Area Wild Horse Census Data

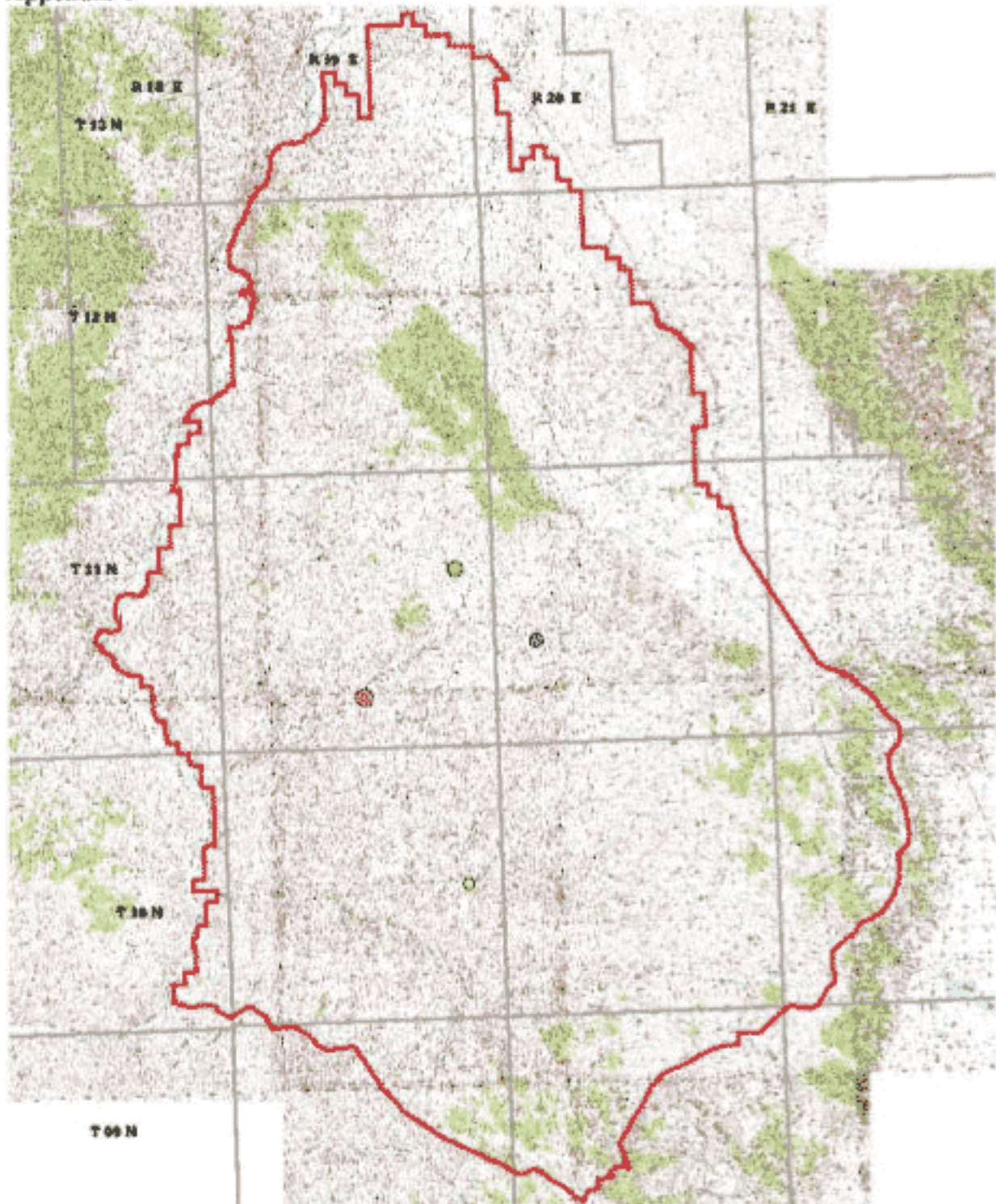
<u>Date</u>	<u>Adults</u>	<u>Yearlings</u>	<u>Foals</u>	<u>Total</u>	<u>Aircraft</u>	<u>Notes</u>
4/xx/71	127	1	1	129	Fixed Wing	
1/28/72	122	0	11	133	Fixed Wing	
2/23/72	123	0	9	132	Fixed Wing	
4/17/72	144	0	6	150	Fixed Wing	
3/xx/73	133	0	0	133	Fixed Wing	
10/5/73	159	28	52	239	Fixed Wing	
1/10/74	155	0	40	195	Fixed Wing	
2/17/74	196	0	60	256	Fixed Wing	
8/5/74	218	16	53	287	Fixed Wing	
11/4/74	274	0	79	353	Fixed Wing	
8/27/75	345	0	62	407	Helicopter	
4/5/76	260	0	2	260	Helicopter	
6/7/76	324	0	33	357	Helicopter	
9/14/76	396	0	84	480	Helicopter	
11/16/76	402	0	82	484	Helicopter	
2/4/77	377	0	0	377	Helicopter	
3/16/77	343	0	2	345	Helicopter	
5/9/77	368	18	44	430	Helicopter	
7/13/77	437	22	100	559	Helicopter	
9/28/77	409	74	123	606	Helicopter	
3/27/78	323	101	1	425	Helicopter	
4/25/78	456	82	29	567	Helicopter	
7/28/78	462	99	100	661	Helicopter	
2/15/79	516	82	0	598	Helicopter	
7/11/79	597	10	117	724	Helicopter	
8/29/79	540	0	110	650	Helicopter	
12/12/79	359	55	1	415	Helicopter	
2/27/80	397	79	4	480	Helicopter	
6/12/80	475	70	76	621	Helicopter	
9/30/80	478	49	90	617	Helicopter	
12/17/80	262	28	29	319	Helicopter	
2/6/81	246	27	49	322	Helicopter	
5/2/81	295	44	33	372	Helicopter	
5/21/82	275	55	28	358	Helicopter	
8/27/82	336	27	57	420	Helicopter	

<u>Date</u>	<u>Adults</u>	<u>Yearlings</u>	<u>Foals</u>	<u>Total</u>	<u>Aircraft</u>	<u>Notes</u>
8/26/83	384	45	70	499	Helicopter	
9/12/84	204	19	39	262	Helicopter	
8/21/85	182	16	39	237	Helicopter	
12/17/85	128	30	0	158	Helicopter	Unreliable Count due to flight conditions
7/29/86	241	7	46	294	Helicopter	
9/18/87	206	9	45	260	Helicopter	
8/2/88	192	45	49	285	Helicopter	
8/16/89	171	28	24	223	Helicopter	
7/17/90	165	26	27	218	Helicopter	
9/4/91	224	17	31	272	Helicopter	
7/16/92	207	23	39	269	Helicopter	
8/4/93	205	32	37	274	Helicopter	
2/10/94	128	0	0	128	Helicopter	
6/24/94	239	41	50	330	Helicopter	
8/28/95	197	15	37	249	Helicopter	
6/10/96	204	18	47	269	Helicopter	
6/11/98	210	32	47	289	Helicopter	
7/5/00	201	30	45	276	Helicopter	
7/23/01	169	25	38	232	Helicopter	
7/25/02	187	30	34	251	Helicopter	

APPENDIX 3 - Challis Herd Management Area Gathers

Date	# Removed	# Gathered
Oct-79	148	148
Oct-80	306	307
Oct-83	311	311
Sep-86	81	88
Sep-88	99	99
Sep-90	33	33
Sep-92	82	82
Sep-94	136	136
Sep-96	86	90
Aug-98	104	111
Aug-00	97	105

Appendix 4



No warranty is made by the BLM
for use of this data for purposes
not intended by the BLM.

Challis Herd Management Area Trip Locations

1:170000



APPENDIX 5 - Population Modeling, Challis HMA

To complete the population modeling for the Challis HMA, version 1.35 of the WinEqus program, created April 2, 2002, was utilized.

All simulations used the survival probabilities and foaling rates supplied with the WinEqus population model for the Garfield Flat HMA. Survival data was collected by M. Ashley and S. Jenkins at Garfield Flat, Nevada between 1993 and 1999. Marked individuals were followed for a total of 708 animal-years to generate these survival probabilities.

Foaling rate data was collected by M. Ashley and S. Jenkins at Garfield Flat, Nevada between 1993 and 1999. Marked females were followed for a total of 351 animal-years to generate these data on foaling rates.

Survival probabilities and foaling rates are summarized in the following tables.

Survival Probabilities and Foaling Rates

Age Class	Survival Probabilities		Foaling Rates
	Females	Males	
Foals	.919	.877	--
1	.996	.950	--
2	.994	.949	.52
3	.993	.947	.67
4	.990	.945	.76
5	.988	.942	.89
6	.985	.939	.76
7	.981	.936	.90
8	.976	.931	.88
9	.971	.926	.91
10-14	.947	.903	.81
15-19	.870	.830	.82
20	.591	.564	.75

Initial age structure of the herd in 2002 was created based on an average of age/sex ratios collected within the Challis HMA during gathers from 1992 through 2000. Gatecut gathers have been used exclusively in the Challis HMA, so a high percentage the herd was not sampled each time. However, enough of the herd was sampled each time (at least 30%) to get a representative sample. The 2002 herd size is estimated at 271 horses based on last year's census (232) and an annual increase of 17%. The following table displays the data utilized to determine the initial age/sex structure in 2002:

Initial Age Structure Challis HMA Population Modeling

Age Class	Average age/sex ratios (1992-2000 gather data)		% of herd by age class
	Females	Males	
Foals	50.65%	49.35%	19.95%
1	70.00%	30.00%	2.38%
2	46.35%	53.65%	26.29%
3	50.77%	49.23%	7.94%
4	63.92%	36.08%	8.83%
5	46.33%	53.67%	5.85%
6	63.33%	36.67%	6.01%
7	68.07%	31.93%	4.88%
8	59.44%	40.56%	4.44%
9	30.00%	70.00%	1.50%
10	33.33%	66.67%	1.46%
11	52.22%	47.78%	3.76%
12	53.33%	46.67%	2.14%
13	87.50%	12.50%	1.09%
14	0.00%	100.00%	0.15%
15	87.50%	12.50%	1.56%
16	100.00%	0.00%	0.31%
17	50.00%	50.00%	0.55%
18	100.00%	0.00%	0.30%
19	100.00%	0.00%	0.25%
20+	50.00%	50.00%	1.44%

The following table displays the initial age and sex structure for the 2002 wild horse population input into the model. Total: 147 mares (53%); 129 studs (47%), for a total of 276* horses. (*Different than the 271 estimated due to rounding).

Initial Age Structure, 2002

Age Class	Challis Initial Age Structure 2002	
	Females	Males
Foals	27	27
1	5	2
2	33	38
3	11	11
4	15	9
5	7	9
6	10	6
7	9	4
8	7	5
9	1	3
10	1	3
11	5	5
12	3	3
13	3	0
14	0	0
15	4	1
16	1	0
17	1	1
18	1	0
19	1	0
20+	2	2

The following table displays the gatecut and modified removal criteria used with the model.

Removal Criteria utilized with Population Modeling, Challis HMA

Age	Percentages for Removals Modified removal criteria Proposed Action		Percentages for Removals Gatecut Alternative	
	Females	Males	Females	Males
Foal	50%	50%	100%	100%
1	50%	50%	100%	100%
2	50%	50%	100%	100%
3	50%	50%	100%	100%
4	50%	50%	100%	100%
5	50%	50%	100%	100%
6	--	--	100%	100%
7	--	--	100%	100%
8	--	--	100%	100%
9	--	--	100%	100%
10-14	--	--	100%	100%
15-19	40%	100%	100%	100%
20+	100%	100%	100%	100%

Different simulations were completed to explore the range of possible results from utilizing the gatecut removal criteria verses the modified criteria. The minimum age of sanctuary-bound wild horses was also changed from 10 years of age to “not applicable” after the decision was made to evaluate modified removal criteria. Different gather intervals were also evaluated, and simulations completed for gathering on specific years or a regular interval, and at a 4-year interval.

Population Modeling Criteria/Management Options

In the end, the final simulations to analyze the alternatives were based on the following:

Simulations were run for four years with 100 trials each.

No minimum age for sanctuary-bound horses was set except for trial IIc (10 years).

The modified removal criteria were utilized.

The following summarizes all other management options selected for all of the modeling efforts completed for Alternatives I and II.

Sex ratio at birth: 58% male

Starting Year: 2002

Initial gather year is 2002

Foals are included in the AML

Percent of the population that can be gathered: 75%

The following summarizes all other management options selected for the modeling efforts:

Alternative I, Fertility Control Alternative

Gather interval: regular interval of four years

Gathers for fertility treatment only occur if population exceeds threshold.

Gathers continue after removals to treat additional females to be released.

Percent effectiveness of fertility control: Year 1: 90%, Year 2-5: 0%

Percentages of released mares treated: 0-1 year old: 100%; 2-9 years old: 50%; 10-20 years old: 100%.

Alternative II, Gatecut Alternative

Gather interval: The model was run with two intervals, a two year gather cycle and a four year cycle.

Threshold population size for gathers is 253. Target population following removals is 185.

The parameters utilized within the modeling are displayed in the table below.

Alternative	I	IIa	IIb	IIc
Range	185-253	185-253	185-253	185-253
Fertility control?	Yes	No	No	No
Gather interval: regular, or specific?	Regular	Specific	Specific	Specific
Gather years	4	2	4	2
Gather for fertility control regardless of size?	--	--	--	--
Gather for f.c. only if threshold exceeded?	Yes	--	--	--
Gathers continue after removals to treat additional females?	Yes	--	--	--
Minimum age of sanctuary bound animals?	NA	NA	NA	10
Standard removal criteria or modified?	modified	gatecut	gatecut	modified
Other info	4 year run	4 year run	4 year run	4 year run

Population Modeling Summary, Challis HMA

Objectives of Population Modeling

Review of the data output for each of the simulations completed with the population model provided many useful comparisons of the possible outcomes for each alternative. The creator of the modeling program, Stephen Jenkins stresses that it is important to think about the range of possible outcomes, not just focus on one average or typical trial. Some of the questions that needed to be answered through the modeling include the following:

- Do any of the Alternatives “crash” the population?
- What effect does fertility control have on population growth rate?
- What effects do the different alternatives have on the average population size?

Population size in five years

Out of the 100 trials in each simulation run, the model tabulated minimum, average and maximum population sizes that were obtained. The model was run for a period of four years from 2002 to 2006, and gives output through 2006 (which is actually five years). These numbers are useful to make relative comparisons of the different alternatives, and potential outcomes under different management options. The data displayed within the tables is broken down into different levels. The lowest trial, highest trial and several in between are displayed for each simulation completed. This output, together with the summary graph of population sizes, is probably the most important representation of the results of the program in terms of assessing the effects of the management plan because it shows not only expected average results but also extreme results that might be possible. The data is for all horses from 0 to 20 years of age.

Population Sizes in 5 years - Minimum

Alternative	I	IIa	IIb	IIc
Lowest Trial	170	144	163	168
10th Percentile	208	184	196	200
25th Percentile	228	194	206	211
Median Trial	248	201	218	226
75th Percentile	266	210	228	242
90th Percentile	288	221	235	253
Highest Trial	316	229	246	325

This table shows that in five years and 100 trials for each alternative, the lowest number of 0-20 year old horses ever obtained was 144 under Alternative IIa. Half of the trials were greater than the median and half of them less than the median. Additional interpretation may be made by comparing the various percentile points. For example, only 10% of the trials resulted in fewer than 208 wild horses as the minimum population under Alternative I, while 10% of the trials resulted in a minimum population larger than 288 for Alternative I. In other words, 80% of the time, one could expect a minimum population between these two values for Alternative I, given the assumptions about survival probabilities, foaling rates, initial age-sex distribution, and management options made for this simulation.

None of the results obtained for any of the alternatives indicate that a crash of the population would occur if the alternative were implemented. The gather criteria seem to have more of an influence on minimum population size than fertility control or gather frequency. It is clear that gatecut gathers every two years would produce the lowest minimum population, and a gather with modified criteria every two years would produce the highest minimum population.

The lowest population sizes obtained are lower than the low range of AML which is 185. This occurs due to the assumptions made by the model, which include census accuracy, effectiveness of the gather, and mares that foal following the gather. These are all realistic assumptions and result in simulations that are closer to real world situations rather than making predictions based on finite numbers.

Population Sizes in 5 years - Average

Alternative	I	IIa	IIb	IIc
Lowest Trial	248	208	212	219
10th Percentile	274	236	268	243
25th Percentile	294	244	285	250
Median Trial	315	249	297	264
75th Percentile	337	257	314	279
90th Percentile	363	269	323	295
Highest Trial	422	288	350	380

This table displays the average population sizes obtained for the 100 trials run for each alternative. The average population size across five years ranged from a low of 208 under Alternative IIa to a high of 422 under Alternative I. Again, Alternative IIa reflects the lowest overall average of all four alternatives. Alternative IIb is the second lowest, followed by IIc and I with the highest average

population size after five years. In comparing the alternatives, Alternative IIa is the only one in which the average median trial stays within the upper range of AML (253). Alternative IIc is relatively close at only 4% over. Alternative IIb and I are over AML by 17% and 25% respectively.

Population Sizes in 5 years - Maximum

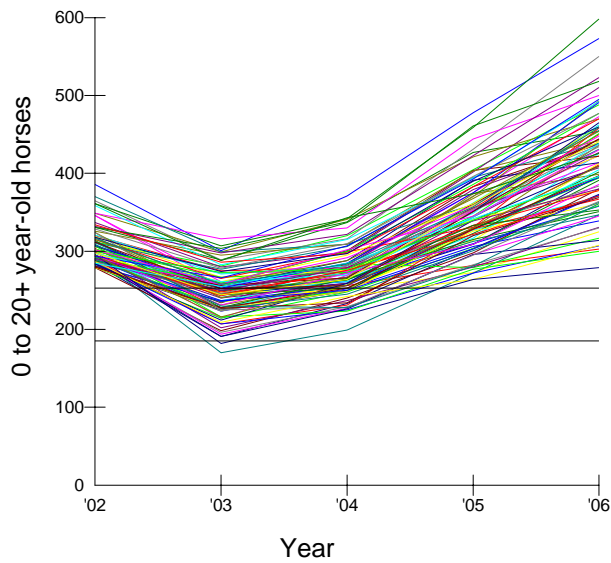
Alternative	I	IIa	IIb	IIc
Lowest Trial	296	279	286	276
10th Percentile	335	286	331	286
25th Percentile	370	296	358	292
Median Trial	414	308	382	304
75th Percentile	454	326	418	319
90th Percentile	492	340	446	338
Highest Trial	598	400	475	459

This table displays the largest populations that could be expected out of 100 trials for each alternative. All figures are very similar because under all of the alternatives, the same starting population, and gather efficiency etc., is assumed. The numbers vary due to randomness and assumptions inherent to the modeling program. The following graphs and charts display the data within these tables:

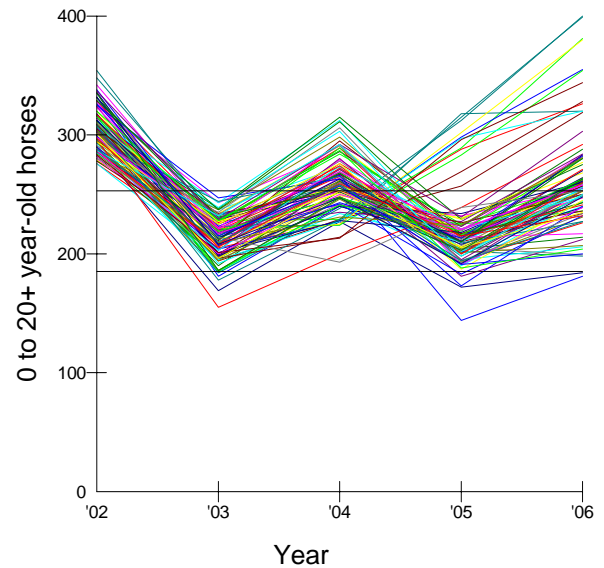
Time Series Graph (Spaghetti Graph)

This graph shows how population size changes over time for each trial. Each colored line represents one of the 100 trials for the simulations completed for each alternative. The two horizontal lines located in the graphs represent the threshold for gather and the target population size. Threshold for gather for all alternatives is 253, which is the upper range of AML. The target population is 185.

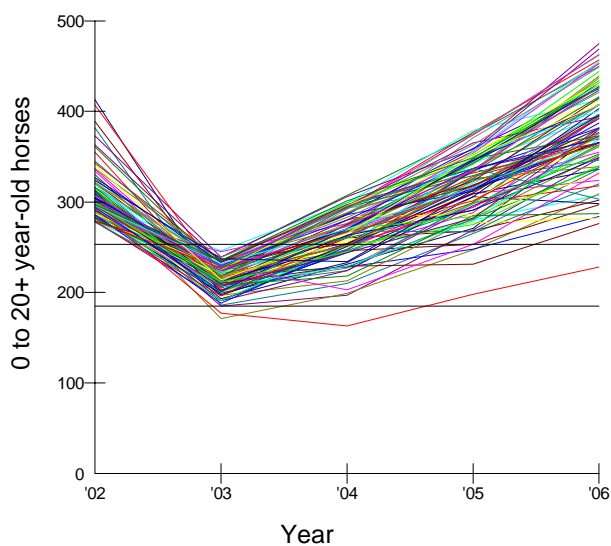
Alternative I



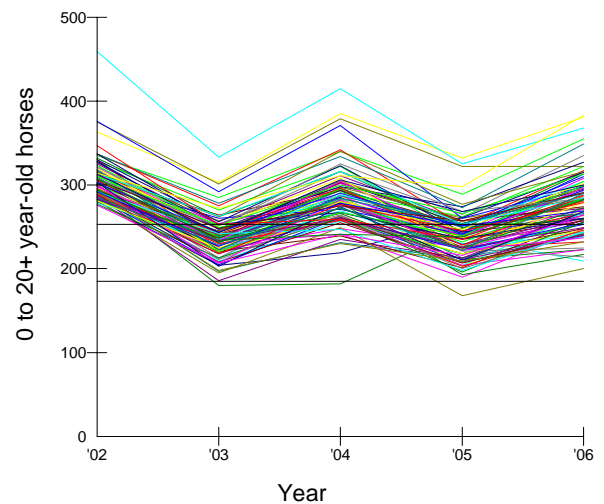
Alternative IIa



Alternative IIb



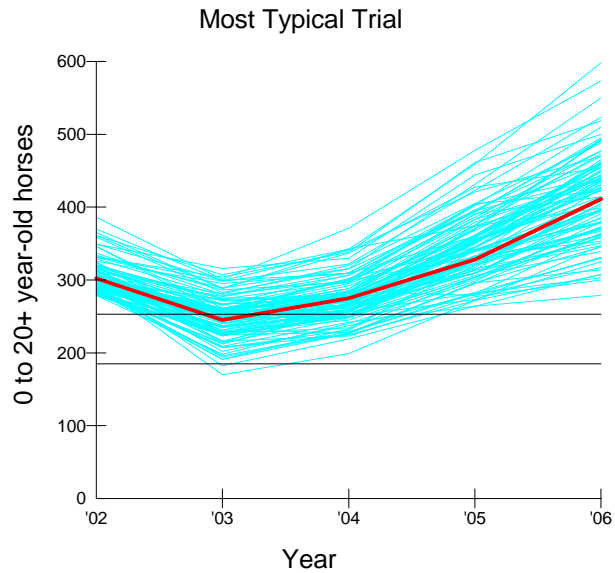
Alternative IIc



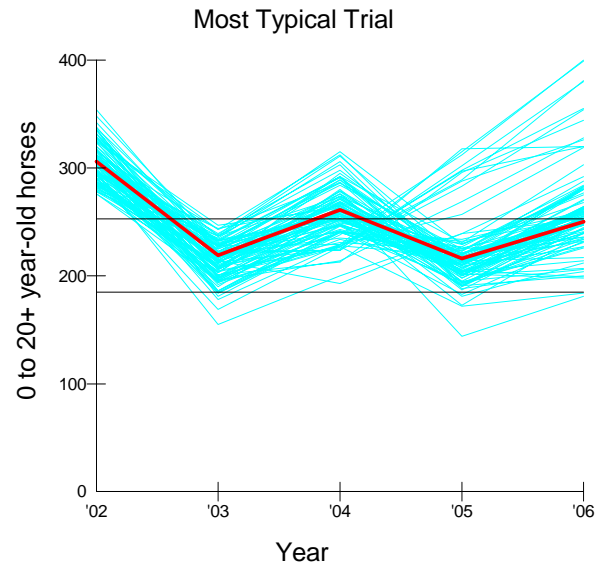
Most Typical Trial

This is the trial that is most similar to each of the others run during the simulation for each alternative. It will generally fall in the middle of the cluster of lines on the spaghetti graph.

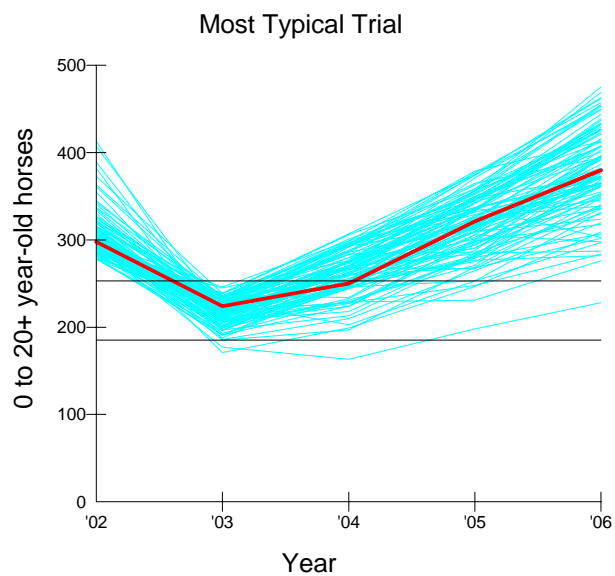
Alternative I



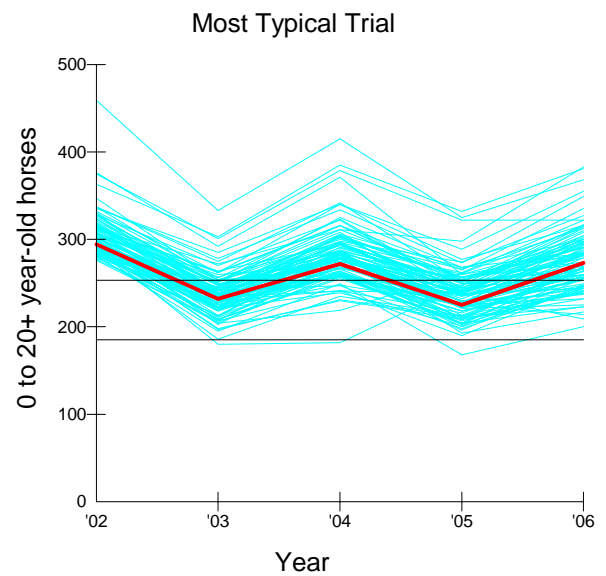
Alternative IIa



Alternative IIb



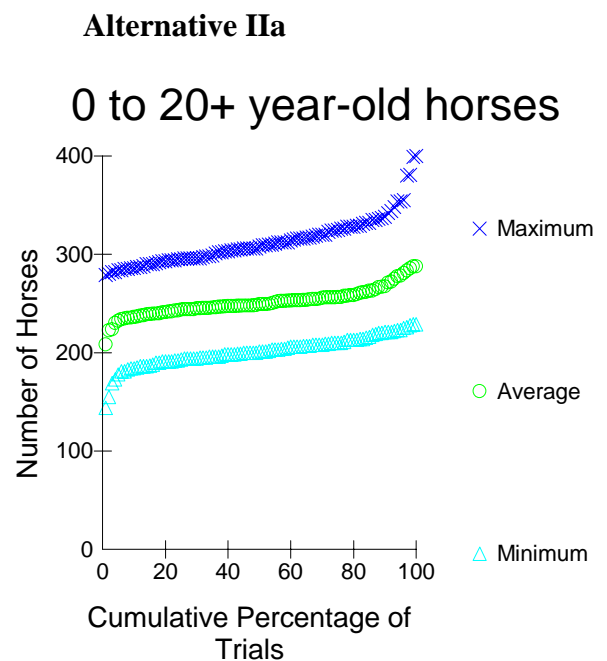
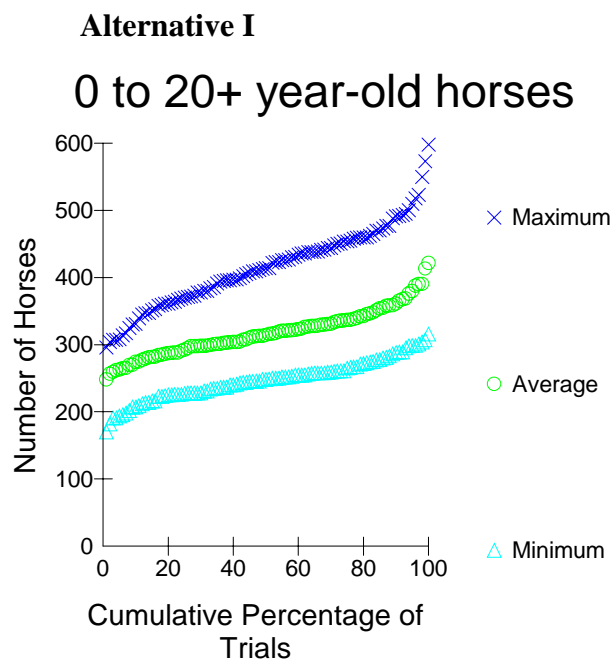
Alternative IIc



Population Size – Summary Graph

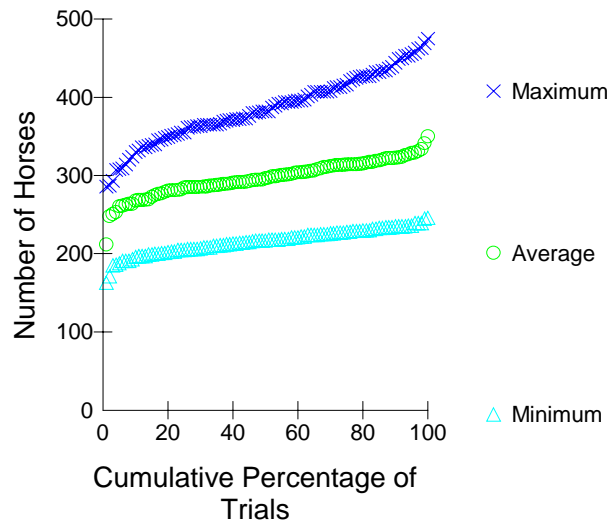
The summary graph shows cumulative frequency distributions across trials of minimum population sizes, average population sizes, and maximum population sizes. The graph shows 100 points in a light blue color, each point representing the minimum for one trial. These points are arranged in order from smallest to largest, so the leftmost point of this sequence is the minimum of the minima of population sizes, or the smallest population size ever seen in four years of 100 trials.

The distribution of maximum population sizes is defined similarly. The average population size for each trial is the average across the years of that trial, and so the distribution of average population sizes is the full set of these averages.



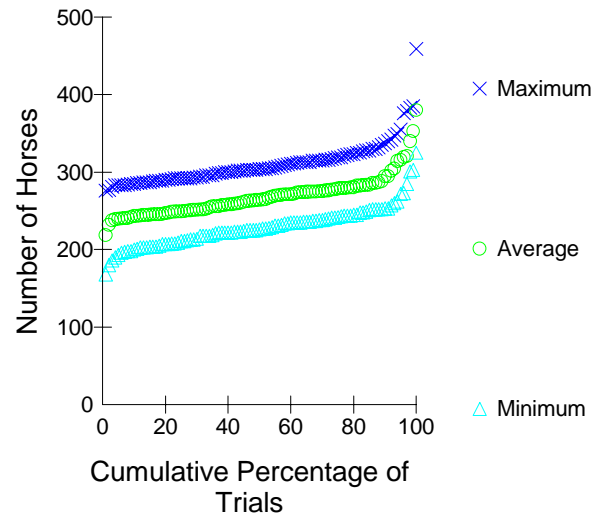
Alternative IIb

0 to 20+ year-old horses



Alternative IIc

0 to 20+ year-old horses



Average Growth Rates in 5 years

As with all of the output data obtained from the model, average growth rates were obtained from running the model for 100 trials for four years under management options for each alternative. The following table displays the results obtained from the model:

Average Growth Rate in 4 Years

Alternative	I	IIa	IIb	IIc
Lowest Trial	9.7	9.7	6.6	15.1
10th Percentile	15.7	16.9	15.7	18.7
25th Percentile	18.8	19.6	19.7	21.2
Median Trial	21.4	22.1	22.0	23.4
75th Percentile	23.4	24.4	24.9	25.7
90th Percentile	24.6	25.9	26.9	27.8
Highest Trial	27.3	31.5	29.2	32.8

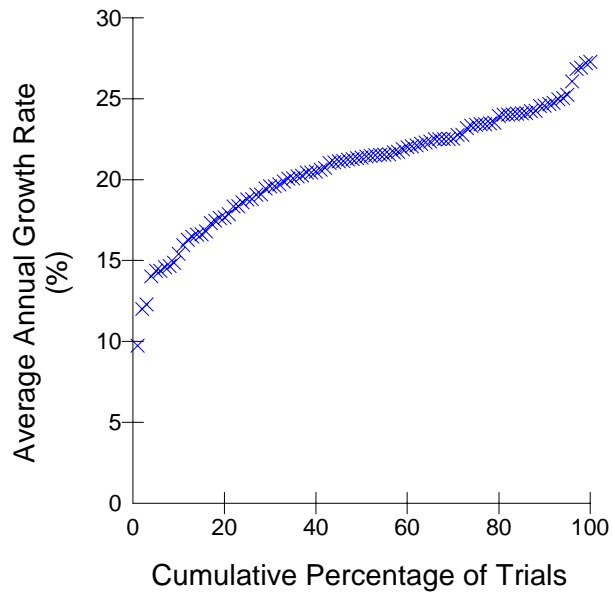
As expected, the alternative implementing fertility control reflects the lowest overall growth rate. The type of gather (gatecut vs modified) seems to have minimal impacts to the growth rates as there are little differences between Alternatives IIa, IIB, and IIc. The lowest trial growth rate of 6.6 within Alternative IIb is not a direct result of the management options, but reflects the random nature of the model and the ability to show extremes in possible outcomes. The one particular trial that resulted in this low growth rate must be reflecting a “bad” year. The range of growth rates are reasonable and do not indicate that any of the alternatives would result in growth rates that are so low as to put the population at risk.

The following graphs illustrate the results obtained from the model for growth rates for each alternative:

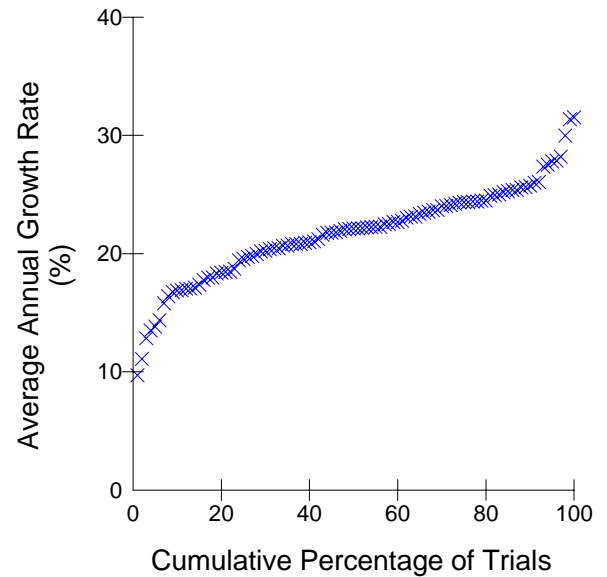
Growth Rates

This shows the distribution of average population growth rate across all trials in graphical format. Each point on the graph represents one of the 100 trials run for each simulation.

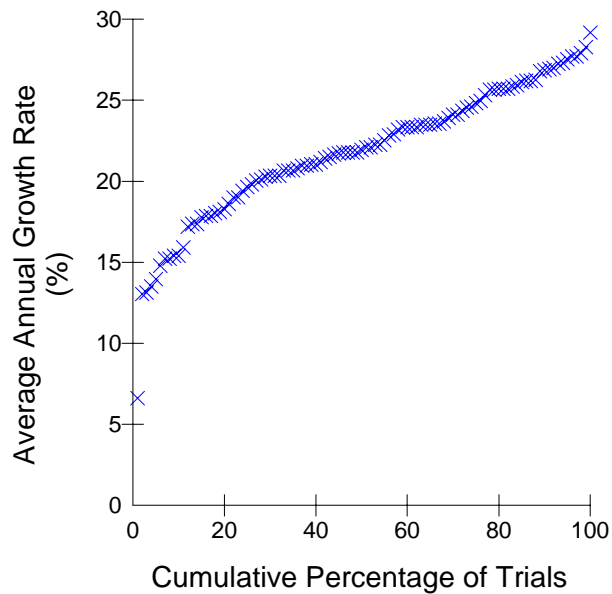
Alternative I



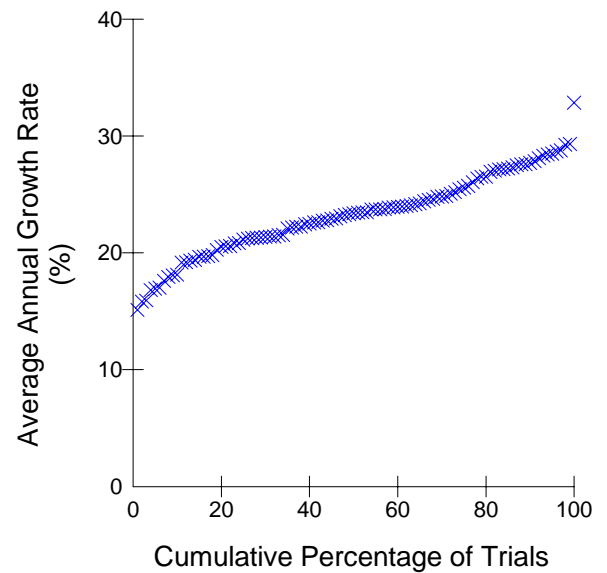
Alternative IIa



Alternative IIb



Alternative IIc



Totals in five years – Gathered, Removed and Treated

The same type of tabular data was obtained from the model for the numbers of wild horses gathered, removed and treated under each alternative. Those tables are displayed below:

Totals in 5 Years* -- Gathered

Alternative	I	IIa	IIb	IIc
Lowest Trial	436	168	106	398
10th Percentile	481	204	268	600
25th Percentile	508	266	300	617
Median Trial	548	296	338	661
75th Percentile	592	317	378	689
90th Percentile	632	340	396	730
Highest Trial	739	411	497	945

Totals in 5 Years* -- Removed

Alternative	I	IIa	IIb	IIc
Lowest Trial	164	159	102	148
10th Percentile	182	192	252	222
25th Percentile	192	250	286	238
Median Trial	210	280	318	256
75th Percentile	224	300	356	266
90th Percentile	240	320	374	283
Highest Trial	291	392	474	369

Totals in 5 Years* -- Treated

Alternative	I	IIa	IIb	IIc
Lowest Trial	79	NA	NA	NA
10th Percentile	86			
25th Percentile	92			
Median Trial	100			
75th Percentile	108			
90th Percentile	118			
Highest Trial	135			

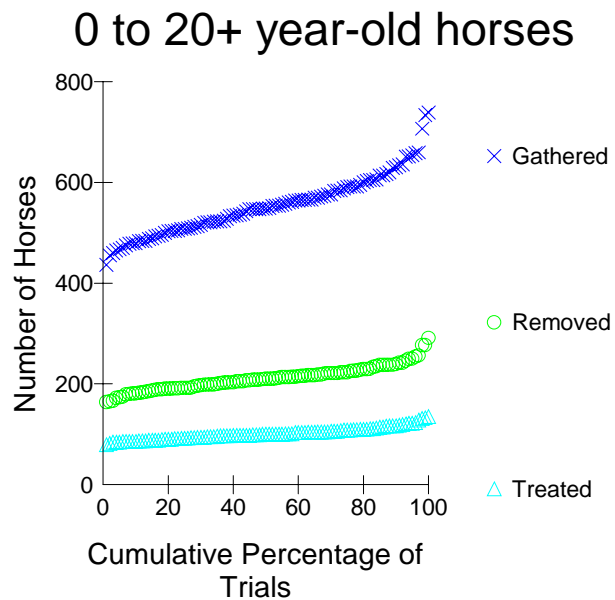
The number of horses gathered does differ greatly between alternatives because removal criteria are different between alternatives. The number of wild horses removed under the different alternatives also varies greatly. Under Alternative I (Fertility control) substantially less numbers of animals would be removed than under the other alternatives during the 5 year period. When removal criteria are applied, a much greater number of horses have to be gathered in order to obtain horses that fit the criteria.

Graphs displaying the results follow:

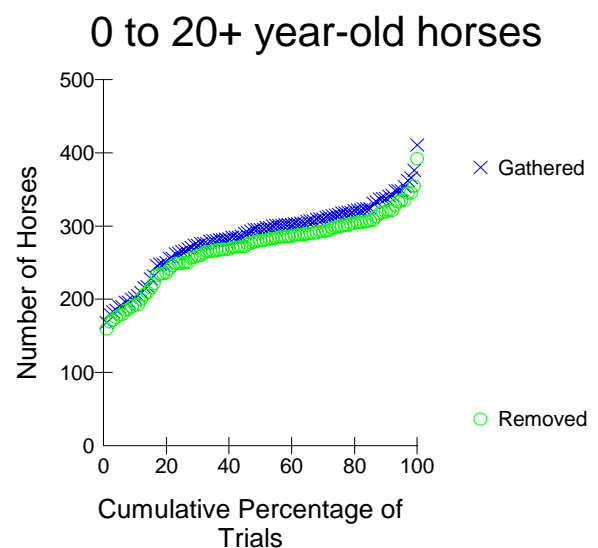
Gathers – Summary Graph

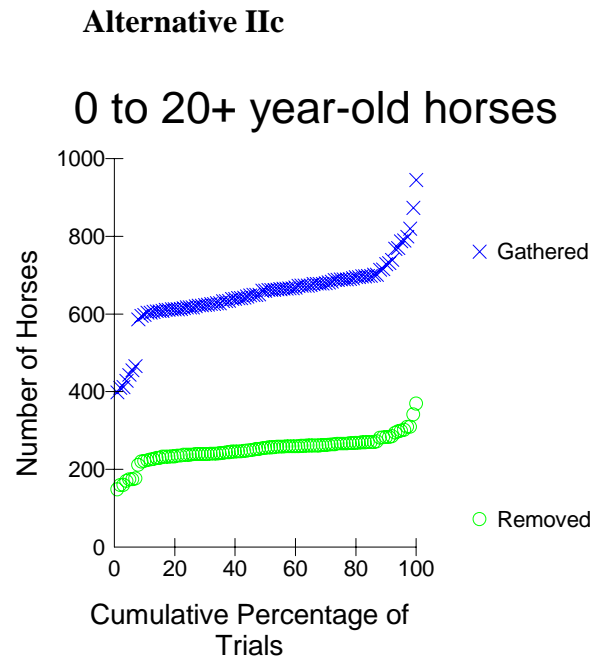
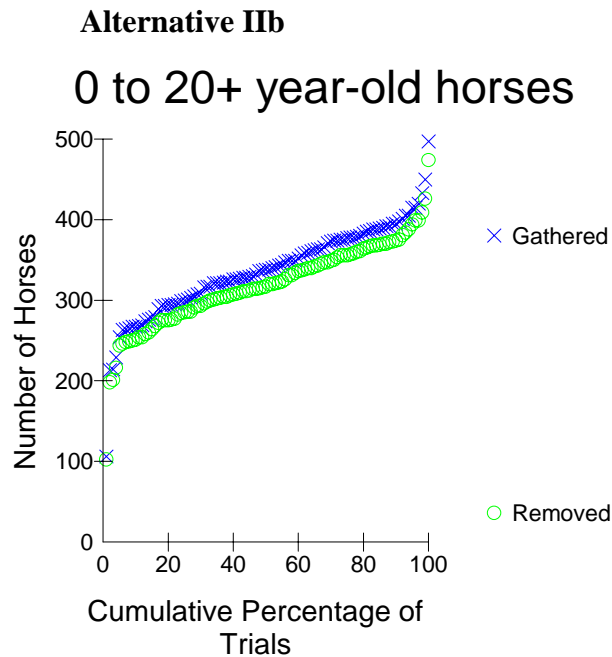
The graphs displayed here show two or three sets of points representing the distributions of total numbers of horses gathered, removed, and treated with a contraceptive across all trials. Each point on the graph represents one of the 100 trials completed for each simulation. Each simulation consists of 100 trials, and each graph has 100 points, arranged in order from smallest to largest number gathered, removed, or treated.

Alternative I



Alternative IIa





Population Modeling Summary

To summarize the results obtained by simulating the range of alternatives for the Challis HMA wild horse gather, the original questions can be addressed.

- Do any of the Alternatives “crash” the population?

None of the alternatives indicate that a crash is likely to occur to the population under any of the alternatives. Minimum population levels and growth rates are all within reasonable levels, and adverse impacts to the population are not likely.

- What effect does fertility control have on population growth rate?

As expected, the alternative implementing fertility control (I) reflects the lowest overall growth rate.

- What effect do the different alternatives have on the average population size?

Frequency of gathers seemed to have more of an influence on the population size than fertility control or the difference in removal criteria (gatecut vs. modified).

ATTACHMENT 1 - STANDARD OPERATING PROCEDURES

A. Methods for Humane Capture Wild Horses or Burros

Helicopter Removals with or without a Contract

The Helicopter-Drive Trapping method employed for this capture operation requires that horses be herded to a trap of portable panels and on extremely rare occasions to ropers who, after roping the animal, will bring it to the trap. Gathering would be conducted using agency personnel or contractors experienced in the humane capture and handling of wild horses. The same rules apply whether a contractor or BLM personnel are used. The following stipulations and procedures will be followed during the contract period to ensure the welfare, safety and humane treatment of the wild horses in accordance with the provisions of 43 CFR 4700 and (if a contract is used, the Challis Herd Management Area Gather/Capture contract).

1. Capture Methods That May Be Used in the Performance of a Helicopter Gather **a. Helicopter Drive Trapping**

This capture method will involve driving horses into a pre-constructed trap using a helicopter. The trap is constructed of portable steel panels consisting of round pipe. Wings are constructed off the ends of the panel trap to aid in funneling horses into the trap. The wings are constructed of natural jute, (or similar netting which will not injure a horse), which is hung on either trees or long steel posts. This sort of wing forms a very effective visual barrier to the horses that they typically will not run through. When the trap is ready for use, a helicopter will start moving one band of horses at a time toward the trap and into the wings.

In heavily wooded areas, it may be necessary to use wranglers in support of the helicopter to move the horses. The helicopter will act more as a spotter for the ground crew in this situation.

The contractor/BLM shall attempt to keep bands intact except where animal health and safety become considerations which would prevent such procedures. The contractor/BLM shall ensure that foals shall not be left behind.

At least one saddle-horse should be immediately available at the trap site to perform roping if necessary. Roping shall be done as determined by the Contracting Officer's Representative (COR) or Project Inspector (PI). Under no circumstances shall animals be tied down for more than one hour.

Domestic saddle horses may also be used to assist the helicopter pilot (on the ground) during the gather operation, by having the domestic horse act as a pilot (or "Judas") horse on the ground, leading the wild horses into the trap site. Individual ground hazers and individuals on horseback may also be used to assist in the gather.

b. Helicopter Assisted Roping

Capture attempts may be accomplished by utilizing a helicopter to drive animals to ropers. Under no circumstances shall horses or burros be tied down for more than one hour.

Roping shall be performed in such a manner that bands will remain together. Foals shall not be left behind.

2. Stipulations for Portable Corral Traps/Exclosures

Capture traps would be constructed in a fashion to minimize the potential for injury to wild horses and BLM personnel. Gates would be wired open at all unmanned trap sites, and would be left closed only when needed to hold horses inside. Trapped horses would not be held inside the traps for a period exceeding 10 hours, unless provided with feed (weed free hay) and water.

The Idaho Department of Fish and Game would be notified as soon as possible if any wildlife became injured during capture operations. Wildlife caught inside traps would be released immediately.

3. Contract Helicopter, Pilot and Communications

The contractor must operate in compliance with Federal Aviation Regulations, Part 91. Pilots provided by the contractor shall comply with the Contractor's Federal Aviation Certificates, applicable regulations of the State in which the gather is located.

When refueling, the helicopter shall remain a distance of at least 1,000 feet or more from animals, vehicles (other than fuel truck), and personnel not involved in refueling.

The COR/PI shall have the means to communicate with the contractor's pilot at all times. If communications cannot be established, the Government will take steps as necessary to protect the welfare of the animals. The frequency(ies) used for this contract will be assigned by the COR/PI when the radio is used. The contractor shall obtain the necessary FCC licenses for the radio system.

The proper operation, service and maintenance of all contractor furnished helicopters is the responsibility of the contractor. The BLM reserves the right to remove from service pilots and helicopters which, in the opinion of the Contracting Officer or COR/PI, violate contract and FAA rules, are unsafe or otherwise unsatisfactory. In this event, the contractor will be notified in writing to furnish replacement pilots or helicopters within 48 hours of notification. All such replacements must be approved in advance of operation by the Contracting Officer or his/her representative.

All incidents/accidents occurring during the performance of any delivery order shall be immediately reported to the COR.

4. Non-Contract Helicopter Operations

An Aircraft Safety Plan and flight hazard analysis will be appropriately approved and filed and copies distributed to the necessary individuals prior to commencing the removal operation. Daily flight plans will also be filed. If a BLM contract helicopter is used, all BLM, Aircraft Safety and Operations standards will be adhered to.

There will be daily briefings with the helicopter pilot, Authorized Officer and all personnel involved in the day's operation. The purpose of this meeting is to discuss in detail all information gathered during the familiarization flight such as hazards, location of horses, potential problems, etc. Discuss any safety hazards anticipated for the coming day's operation or any safety problems observed by the Authorized Officer or anyone else, outline the plan of action, delineate course of actions, specifically position the hazers and their responsibilities, logistics, and timing. After each flight, removal personnel will discuss any problems and suggest solutions. This may be accomplished over the radio or on the ground as the need dictates.

A flight operations plan will be filed with the Salmon Dispatch Center. This plan will describe the area to be flown and the expected time frames of flight operations. A weather forecast will be acquired from the dispatcher. There will be no flights on days of high or gusty, erratic winds or days with poor visibility.

Two-way radio communication between the helicopter and the ground crew will be maintained at all times during the operation.

An operation or contractor's log will be maintained for all phases of the operation. The log will be as detailed as possible and will include names, dates, places and other pertinent information, as well as observations of personnel involved.

5. Animal Handling and Care

Prior to any gathering operations, the COR/PI will provide for a pre-capture evaluation of existing conditions in the gather areas. The evaluation will include animal condition, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with location of fences, other physical barriers, and acceptable trap locations in relation to animal distribution. The evaluation will determine whether the proposed activities will necessitate the presence of a veterinarian during operations. If it is determined that capture efforts necessitate the services of a veterinarian, one would be obtained before capture would proceed.

The contractor will be apprised of the all conditions and will be given instructions regarding the capture and handling of animals to ensure their health and welfare is protected.

The Authorize Officer and pilot may take a familiarization flight identifying all natural hazards (rims, canyons, winds) and man-made hazards in the area so that helicopter flight crew, ground personnel, and wild horse safety will be maximized. Aerial hazards will be recorded on the project map.

No fence modifications will be made without authorization from the Authorized Officer. The contractor/BLM shall be responsible for restoration of any fence modification that has been made.

If the route the contractor/BLM proposes to herd animals passes through a fence, opening should be large enough to allow free and safe passage. Fence material shall be rolled up and fence posts will be removed or sufficiently marked to ensure safety of the animals. The standing fence on each side of the gap will be well flagged or covered with jute or like material.

Wings shall not be constructed out of materials injurious to animals and must be approved by the Authorized Officer.

It is the responsibility of the contractor/BLM to provide security to prevent loss, injury or death of captured animals until delivery to final destination.

Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours. Animals that are to be released back into the capture area may need to be transported back to the original trap site. This determination will be at the discretion of the COR.

Branded or privately owned animals captured during gather operations will be handled in accordance with state estray laws and existing BLM policy.

Capture methods will be identified prior to issuance of delivery orders. Regardless of which methods are selected, all capture activities shall incorporate the following:

a. Trap Site Selection

The Authorized Officer will make a careful determination of a boundary line to serve as an outer limit within which horses will be herded to a selected trap site. The Authorized Officer will insure that the pilot is fully aware of all natural and man made barriers which might restrict free movement of horses. Topography, distance, and current condition of the horses are factors that will be considered to set limits to minimize stress on horses.

Gather operations will be monitored and restricted (if necessary) to assure the body condition of the horses is compatible with the distances and the terrain over which they must travel. Pregnant

mares, mares with small colts, and other horses would be allowed to drop out of bands which are being gathered if required to protect the safety and health of the animals.

All trap and holding facility locations must be approved by the Authorized Officer prior to construction. The situation may require moving of the trap. All traps and holding facilities not located on public land must have prior written approval of the landowner.

Trap sites will be located to cause as little injury and stress to the animals, and as little damage to the natural resources of the area, as possible. Sites will be located on or near existing roads. Additional trap sites may be required, as determined by the Authorized Officer, to relieve stress to the animals caused by specific conditions at the time of the gather (i.e. dust, rocky terrain, temperatures, etc.).

b. Trap/Facility Requirements

All traps, wings, and holding facilities shall be constructed, maintained and operated to handle the animals in a safe and humane manner and be in accordance with the following:

Traps and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for horses and 60 inches for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All traps and holding facilities shall be oval or round in design.

All loading chute sides shall be fully covered with plywood (without holes) or like material. The loading chute shall also be a minimum of 6 feet high.

All runways shall be of sufficient length and height to ensure animal and wrangler safety. and may be covered with plywood, burlap, plastic snow fence or like material a minimum of 1 foot to 5 feet above ground level for burros and 1 foot to 6 feet for horses.

If a government furnished portable chute is used to restrain, age, or to provide additional care for animals, it shall be placed in the runway in a manner as instructed by or in concurrence with the Authorized Officer.

All crowding pens including the gates leading to the runways may, if necessary to prevent injuries or escape attempts, be covered with a material which prevents the animals from seeing out (plywood, burlap, snow fence etc.) and should be covered a minimum of 2 feet to 6 feet.

When holding facilities are used, and alternate pens are necessary to separate mares with small foals, animals which will be released, sick and injured animals, and estrays from the other animals or to facilitate sorting as to age, number, size, temperament, sex, and condition. They will be constructed to minimize injury due to fighting and trampling. In some cases, the Government will require that animals be restrained for determining an animal's age or for other purposes. In these

instances, a portable restraining chute will be provided by the Government. Either segregation or temporary marking and later segregation will be at the discretion of the COR.

If animals are held in the traps and/or holding facilities, a continuous supply of fresh clean water at a minimum rate of 10 gallons per animal per day will be supplied. Animals held for 10 hours or more in the traps or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day.

Separate water troughs shall be provided at each pen where animals are being held. Water troughs shall be constructed of such material (e.g. rubber, rubber over metal) so as to avoid injury to animals.

When dust conditions occur within or adjacent to the trap or holding facility, the contractor/BLM shall be required to wet down the ground with water.

6. Treatment of Injured or Sick; Disposition of Terminal Animals

The contractor/BLM shall restrain sick or injured animals if treatment is necessary. A veterinarian may be called to make a diagnosis and final determination. Destruction shall be done by the most humane method available. Authority for humane destruction of wild horses is provided by the Wild Free-Roaming Horse and Burro Act of 1971, Section 3(b)(2)(A), 43 CFR 4730.1, BLM Manual 4730 - Destruction of Wild Horses and Burros and Disposal of Remains, and is in accordance with BLM policy as expressed in Instructional Memorandum No. 98-141.

Any captured horses that are found to have the following conditions may be humanely destroyed:

- a. The animal shows a hopeless prognosis for life.
- b. Suffers from a chronic disease.
- c. Requires continuous care for acute pain and suffering.
- d. Not capable of maintaining a body condition rating of one or two.
- e. The animal is a danger to itself or others.

The Authorized Officer will determine if injured animals must be destroyed and provide for destruction of such animals. The contractor/BLM may be required to dispose of the carcasses as directed by the Authorized Officer.

The carcasses of the animals that die or must be destroyed as a result of any infectious, contagious, or parasitic disease will be disposed of by burial to a depth of at least 3 feet.

The carcasses of the animals that must be destroyed as a result of age, injury, lameness, or noncontagious disease or illness will be disposed of by removing them from the capture site or holding corral and placing them in an inconspicuous location to minimize visual impacts. Carcasses will not be placed in drainages regardless of drainage size or downstream destination.

7. Motorized Equipment

All motorized equipment employed in the transportation of captured animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The contractor shall provide the Authorized Officer with a current safety inspection (less than one year old) of all tractor/stock trailers used to transport animals to final destination.

Vehicles shall be in good repair, of adequate rated capacity, and operated so as to ensure that captured animals are transported without undue risk or injury.

Only stock trailers with a covered top shall be allowed for transporting animals from trap site(s) to temporary holding facilities. Only stock trailers, or single deck trucks shall be used to haul animals from temporary holding facilities to final destination(s). Sides or stock racks of transporting vehicles shall be a minimum height of 6 feet 6 inches from the vehicle floor. Single deck trucks with trailers 40 feet or longer shall have two (2) partition gates providing three (3) compartments within the trailer to separate animals. The compartments shall be of equal size plus or minus 10 percent. Trailers less than 40 feet shall have at least one partition gate providing two (2) compartments within the trailer to separate animals. The compartments shall be of equal size plus or minus 10 percent. Each partition shall be a minimum of 6 feet high and shall have at the minimum a 5 foot wide swinging gate. The use of double deck trailers is unacceptable and will not be allowed.

All vehicles used to transport animals to the final destination(s) shall be equipped with at least one (1) door at the rear end of the vehicle, which is capable of sliding either horizontally or vertically. The rear door must be capable of opening the full width of the trailer. All panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of the trailer must be strong enough, so that the animals cannot push their hooves through the sides. Final approval of vehicles to transport animals shall be held by the Authorized Officer.

Floors of vehicles, trailers, and the loading chute shall be covered and maintained with materials sufficient to prevent the animals from slipping.

Animals to be loaded and transported in any vehicle or trailer shall be as directed by the Authorized Officer and may include limitations on numbers according to age, size, sex, temperament, and animal condition. The minimum square footage per animal is as follows:

- 11 square feet/adult horse (1.4 linear foot in an 8 foot wide trailer)
- 6 square feet/horse foal (0.75 linear foot in an 8 foot trailer)

The Authorized Officer shall consider the condition of the animals, weather conditions, type of vehicles, distance to be transported, or other factors when planning for the movement of captured animals. The Authorized Officer shall provide for any brand and/or inspection services required for the captured animals.

Communication lines will be established with personnel involved in off-loading the animals to receive feedback on how the animals arrive (condition/injury etc.). Should problems arise, gathering methods, shipping methods and/or separation of the animals will be changed in an attempt to alleviate the problems.

If the Authorized Officer determines that dust conditions are such that animals could be endangered during transportation, the contractor/BLM will be instructed to adjust speed and/or use alternate routes.

Periodic checks by the Authorized Officer will be made as animals are transported along dirt roads. If speed restrictions are in effect the Authorized Officer will at times follow and/or time trips to ensure compliance.

8. Special Stipulations.

Private landowners or the proper administering agency(s) would be contacted and authorization obtained prior to setting up traps on any lands which are not administered by BLM. Wherever possible, traps would be constructed in such a manner as to not block vehicular access on existing roads.

If possible, traps would be constructed so that no riparian vegetation is contained within them. Impacts to riparian vegetation and/or running water is located within a trap (and available to horses) would be mitigated by removing horses from the trap immediately upon capture. No vehicles would be operated on riparian vegetation or on saturated soils associated with riparian/wetland areas.

Gathering would be conducted when soils are dry or frozen and conditions are optimal for safety and protection of the horses and wranglers. Whenever possible, gather activities will be scheduled to minimize impacts with big game hunting seasons.

Gathers would not be conducted 6 weeks on either side of peak foaling season which for this gather is April 1 to June 15 to reduce the chance of injury or stress to pregnant mares or mares with young foals.

The helicopter would avoid eagles and other raptors, and would not be flown repeatedly over any identified active raptor nests. No unnecessary flying would occur over big game on their winter ranges or active fawning/calving grounds during the period of use.

Standard operating procedures in the selection and construction of traps will avoid adverse impacts from trap selection, construction, or operation to wildlife species, including threatened, endangered, or sensitive species.

9. Herd Health and Viability Data Collection

The following information will be collected from each animal captured: age, sex, color, overall health, pregnancy or nursing status.

In addition, blood or hair samples may be collected from individuals within the herd. Certain other activities including immunocontraceptive research radio collaring, and freeze marking may be conducted.

a. Population Management Plan/Selective Addition or Removal

Blood samples may be taken for the purposes of furthering genetic ancestry studies and incorporation into the Population Management Plans which will be developed for each HMA/complex.

On occasion, it may be necessary to enhance and maintain genetic diversity a few animals with compatible characteristics may be introduced from other HMAs. Introduced animals will be taken from areas with similar habitat.

b. Immunocontraceptive Research

When the immunocontraceptive vaccine is used, trained individuals will conduct delivery of the vaccine, using approved delivery methods. The vaccine will be administered to the large muscle on the hip.

10. Public Participation

The public must adhere to guidance from the agency representative and viewing must be prearranged.

11. Safety

Safety of BLM employees, contractors, members of the public, and the wild horses (or burros) will be given primary consideration. The following safety measures will be used by the Authorized Officer and all others involved in the operation as the basis for evaluating safety performance and for safety discussions during the daily briefings:

A briefing between all parties involved in the gather will be conducted each morning.

All BLM personnel, contractors and volunteers will wear protective clothing suitable for work of this nature. BLM will alert observers of the requirement to dress properly. BLM will assure that members of the public are in safe observation areas.

The handling of hazardous, or potentially hazardous materials such as liquid nitrogen and vaccination needles will be accomplished in a safe and conscientious manner by BLM personnel or the contract veterinarian.

12. Glossary

Appropriate Management Level _ The number of wild horses and burro which can be sustained within a designated herd management area which achieves and maintains a thriving natural ecological balance keeping with the multiple_use management concept for the area.

Authorized Officer - An employee of the BLM to whom has been delegated the authority to perform the duties described in these Standard Operating Procedures. See BLM Manual 1203 for explanation of delegation of authority.

Census _ The primary monitoring technique used to maintain a current inventory of wild horses and burros on given areas of the public lands. Census data are derived through direct visual counts of animals using a helicopter.

Contracting Officer (CO) - Is the individual responsible for an awarded contract who deals with claims, disputes, negotiations, modifications and payments. Appoints CORs and PIs.

Contacting Officers Representative (COR) - Acts as the technical representative for the CO on a contract. Ensures that all specifications and stipulations are met. Reviews the contractor's progress, advises the CO on progress, problems, costs, etc. Is responsible for review, approval, and acceptance of services.

Evaluation _ A determination based on studies and other data that are available as to if habitat and population objectives are or are not being met and where an overpopulation of wild horses and burros exists and whether actions should be taken to remove excess animals.

Excess Wild Horses or Burros - Wild free_roaming horses or burros which have been removed from public lands or which must be removed to preserve and maintain a thriving ecological balance and multiple_use relationship.

Genetically Viable _ Fitness of a population as represented by its ability to maintain the long_term reproductive capacity of healthy, genetically diverse members.

Health Assessment _ Evaluation process based on best available studies data to determine the current condition of resources in relation to potential or desired conditions.

Healthy Resources _ Resources that meet potential or desired conditions or are improving toward meeting those potential or desired conditions.

Herd Area _ The geographical area identified as having been used by wild horse and burro populations in 1971, at the time of passage of the Wild Free_roaming Horse and Burro Act.

Herd Management Area _ The geographical area as identified through the land use planning process established for the long_term management of wild horse and burro populations. The boundaries of the herd management area may not be greater than the area identified as having been used by wild horse and burro populations in 1971, at the time of passage of the Wild Free_roaming Horse and Burro Act.

Invasive Weeds _ Introduced or noxious vegetative species which negatively impact the ecological balance of a geographical area and limit the areas potential to be utilized by authorized uses.

Metapopulation (complex) _ A population of wild horses and burros comprised of two or more smaller, interrelated populations that are linked by movement or distribution within a defined geographical area.

Monitoring _ Inventory of habitat and population data for wild horses and burros and associated resources and other authorized rangeland uses. The purpose of such inventories is to be used during evaluations to make determinations

Multiple Use Management _ A combination of balanced and diverse resource uses that takes into account the long_term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals watershed, domestic livestock, wild horses, wild burros, wildlife, and fish, along with natural, scenic, scientific, and historical values.

Project Inspector - Coordinates with the COR assigned to a contract to support his/her responsibility for review, approval, and acceptance of services.

Research _ Science based inquiry, investigation or experimentation aimed at increasing knowledge about wild horses and burros conducted by accredited universities or federal government research organizations with the active participation of BLM wild horse and burro professionals.

Science Based Decision Making _ Issuance of decisions affecting wild horses and burros, associated resources and other authorized rangeland uses incorporating best available habitat and population data and in consultation with the public.

Studies _ Science based investigation of specific aspects of wild horse and burro habitat or populations in supplement to established monitoring. These investigations would not be established following rigid experimental protocols and could include drawing blood on animals to study genetics, disease and general health issues and population dynamics such as reproduction and mortality rates and general behavior.

Thriving Natural Ecological Balance - An ecological balance requires that wild horses and burros and other associated animals be in good health and reproducing at a rate that sustains the population, the key vegetative species are able to maintain their composition, production and reproduction, the soil resources are being protected, maintained or improved, and a sufficient amount of good quality water is available to the animals.

ATTACHMENT 2 - IDAHO STANDARDS FOR RANGELAND HEALTH

The following section identifies the Standards for Rangeland Health, Idaho. The eight standards are listed with a description of each standard.

Standard 1 (Watersheds) – Watersheds provide for the proper infiltration, retention, and release of water appropriate to soil type, vegetation, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Standard 2 (Riparian Areas and Wetlands) – Riparian-wetland areas are in properly functioning condition appropriate to soil type, climate, geology, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Standard 3 (Stream Channel/Floodplain) – Stream channels and floodplains are properly functioning relative to the geomorphology (e.g., gradient, size, roughness, confinement, and sinuosity) and climate to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Standard 4 (Native Plant Communities) – Healthy, productive, and diverse native animal habitat and populations of native plants are maintained or promoted as appropriate to soil type, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Standard 5 (Seedings) - Rangelands seeded with mixtures, including predominately non-native plants, are functioning to maintain life form diversity, production, native animal habitat, nutrient cycling, energy flow, and the hydrologic cycle.

Standard 6 (Exotic Plant Communities, Other than Seedings) – Exotic plant communities, other than seedings, will meet minimum requirements of soil suitability and maintenance of existing native and seeded plants. These communities will be rehabilitated to perennial communities when feasible cost effective methods are developed.

Standard 7 (Water Quality) – Surface and ground water on public lands comply with the Idaho Water Quality Standards.

Standard 8 (Threatened and Endangered Plants and Animals) – Habitats are suitable to maintain viable populations of threatened and endangered, sensitive, and other special status species.

ATTACHMENT 3 - DISTRIBUTION LIST

KEITH HOBBS	KEITH AXLINE	L.R. SULLIVAN AMERICAN FISHERIES SOCIETY EXECUTIVE DIRECTOR
LAVERNE GRAY	LEE BERNSTEIN ASSOCIATED HUMANE SOCIETIES EXECUTIVE DIRECTOR	LESLIE YOUNG
LIFE FOUNDATION	LOWELL H. FRAUENHOLZ	LYNN KINCANNON, ICL
MERILYN REEVES LEAGUE OF WOMEN VOTERS OF THE U.S.	MICHAEL NOLAN AMERICAN HORSE COUNCIL, INC	MIKE MEDBERRY IDAHO CONSERVATION LEAGUE
KAREN SUSSMAN ISPMB	NANCY WHITAKER API	NATIONAL 4-H COUNCIL
NATIONAL WILDLIFE FEDERATION	NATIONAL WILD HORSE AND BURRO SHOW	NATIONAL WILD HORSE ASSOCIATION
NATIONAL CATTLEMAN-S ASSOCIATION	NORTH AMERICAN MUSTANG	PAUL HUTCHENS AMERICAN DONKEY AND MULE SOCIETY
PAULA JEWELL THE US HUMANE SOCIETY	PROJECT EQUIS	PRYOR MUSTANG ASSOCIATION
PUBLIC LANDS INSTITUTE	PUBLIC LANDS RESOURCE COUNCIL	PUBLIC LANDS FOUNDATION
RANDY MORRIS	RECORDER HERALD	REGIONAL SERVICES, INC
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DR. J.F. KULBERG, AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS	THE POST REGISTER, IDAHO FALLS	ELIZABETH PELLITIER, THE WILD HORSE ALLIANCE
F. JAMES WHITTAKER	FRIENDS OF THE MUSTANG	GARY AND JACKIE INGRAM
GEORGE SNYDER, AMERICAN MUSTANG ASSOCIATION	HANK FISCHER, DEFENDERS OF WILDLIFE	HARRY HODGDON, THE WILDLIFE SOCIETY

HELEN JONES, INTERNATIONAL SOCIETY FOR ANIMAL RIGHTS	HOOVED ANIMAL HUMANE SOCIETY	HUMANE SOCIETY OF THE U.S.
HUMANE EQUINE RESCUE AND DEVELOPMENT	IDAHO HORSE COUNCIL	IDAHO CATTLEMEN'S ASSOCIATION
IDAHO WOOL GROWERS ASSOCIATION	IDAHO CONSERVATION LEAGUE	INT. SOCIETY PROTECTION OF MUSTANGS AND BURROS
INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES	INTERNATIONAL STRIPED HORSE ASSOCIATION	JACK ELLIS
JAMES R. KOVIC, DEFENDERS OF ANIMAL RIGHTS	JEANNINE STALLINGS	IDAHO DEPARTMENT OF FISH AND GAME
JOHANNA WALD, NATURAL RESOURCES DEFENSE COUNCIL	JUDY LEUZINGER	KEITH AMAR
RICK JOHNSON, ICL	ROBERT D. DAY, RENEWABLE NATURAL RESOURCES FOUNDATION	ROY ELLIS
RUSSELL W. HEUGHINS, REST THE WEST	SIERRA CLUB	SOCIETY FOR RANGE MANAGEMENT
TERRI JAY, COMM. FOR THE PRESERVATION OF WILD HORSES	SENATOR LARRY CRAIG	WAPITI MEADOW RANCH
WHOLE HORSE INSTITUTE	WILDLIFE MANAGEMENT INSTITUTE	MARY SCHOKNECHT
SOCIETY FOR PROTECTIVE LEGISLATION	IDAHO STATE OFFICE, BLM	MIKE MEDBERRY, AMERICAN LANDS ALLIANCE
AMERICAN WILDLANDS	CLARK COLLINS, BLUE RIBBON COALITION	IDAHO DEPT. OF PARKS AND RECREATION
JERRY JAYNE, IDAHO ENVIRONMENTAL COUNCIL	IDAHO FISH AND WILDLIFE FOUNDATION	GRANT SIMONDS, IDAHO OUTFITTER AND GUIDES ASSOCIATION
LIZ PAUL, IDAHO RIVERS UNITED	RON MITCHELL, IDAHO SPORTING CONGRESS	LAND AND WATER FUND OF THE ROCKIES
CAROL WARDEN, NATIONAL AUDOBON SOCIETY	RICH DAY, NATIONAL WILDLIFE FEDERATION	BILL MARLETT, OREGON NATURAL DESERT ASSN.
BUD WOODS, PEOPLE FOR THE WEST	STEVE JAKUBOWICS	DAVID MEYERS

DON SMITH, ALLIANCE FOR
THE WILD ROCKIES

CHARLEY RAINS, AUDOBON
SOCIETY-GOLDEN EAGLE

SCOTT PLOGGER,
COMMITTEE FOR IDAHO HIGH
DESERT

GRASSROOTS FOR MULTIPLE
USE, CUSTER CHAPTER

DOUG NILSON, THE SIERRA
CLUB

DENNIS BAIRD

PAM MARCUM

LOST PEAKS RANCH

MICHAEL ROACH

WESTERN WATERSHEDS
PROJECT

CUSTER COUNTY
COMMISSIONERS

SHOSHONE BANNOCK TRIBES

IDAHO DEPARTMENT OF
LANDS

IDAHO DEPARTMENT OF FISH
AND GAME

THE WILDERNESS SOCIETY

BOULDER-WHITE CLOUDS
COUNCIL

LOST RIVER RANGER
DISTRICT

IDAHO DEPARTMENT OF
AGRICULTURE

IDAHO DEPARTMENT OF
HEALTH AND WELFARE

ANDREA LOCOCO, THE FUND
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BARBARA FLORES,
COLORADO WILD HORSE AND
BURRO COALITION